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ABSTRACT

These proceedings consist of 12 presentations, most of which are followed by responses or comments. The papers include: "Integrating Family Economics and Family Counseling" (Hogan; discussants Schnittgrund, Wilhelm); "A Test of the Deacon-Firebaugh Management Model" (Gage, Schmid); "Perceived Income Adequacy and Selected Financial Management Practices among Families in Mexico" (Ormsby, Fairchild); "Factors Related to Estate Planning Knowledge and Estate Planning Actions of Married Individuals" (Morrow; discussant Makela); "Defining and Measuring a Consumer Conservation Ethic" (Haldeman, Tripple; discussants Herrin, Iams); "Women's World Banking and Credit Strategies in Developing Countries" (Walsh); "Managerial Response and Role Adaptation Involved for Women in Meeting a Political Volunteer Demand" (Snider); "The Rural Elderly: Shopping Patterns and Attitudes" (Meiners, Heltsley; discussants Burton, Rudd); "The Gray Panthers and Economic Issues" (Harwood); "Satisfaction/Dissatisfaction of the Elderly with Conditions in the Marketplace" (Jeries); "Personal Computers and Personal Finance: A Team in Teaching Thinking Skills" (Anderson, Snodgrass); and "Consumer Education Knowledge of Prospective Teachers at Two Manitoba Universities" (Thor, Berry). (YLB)

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25th Annual
Western Regional
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Conference
1985

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PROGRAM

WESTERN REGIONAL HOME MANAGEMENT - FAMILY ECONOMIC EDUCATORS CONFERENCE
25th Annual Conference
November 6-8, 1985
Scottsdale, Arizona

Wednesday, November 6

		PAGE
1:00 p.m.	Registration	
3:00 p.m.	Opening General Session on behalf of host institutions:	
	Welcome: Georgianne Baker, Arizona State and Molly Longstreth, Arizona	
	Moderator: Jeanne W. Smith, California	
	"Integrating Family Economics and Family Counseling"	1
	M. Janice Hogan, Minnesota	
	Panelists: Bernard Poduska, Brigham Young.	NP
	Karen P. Schnittgrund, California	6
	Mari Wilhelm, Arizona	7
5:30 p.m.	Mariachi Cocktail Reception at Poolside	

Thursday, November 7

8:30 a.m.	Concurrent Sessions	
	I. Reviewed Paper Session	
	Presider: Pamela Olson, New Mexico	
	"A Test of the Deacon-Firebaugh Management Model" Geraldine Gage, Minnesota	9
	"Perceived Income Adequacy and Selected Financial Management Practices Among Families in Mexico" Patricia Ormsby, Brigham Young	13
	II. External Funding for Research	
	Moderator: Jean M. Lown, Utah	
	Panelists: Georgianne Baker, Arizona State	
	Colien Hefferan, U.S.D.A., Washington, D.C.	
	M. Janice Hogan, Minnesota	
	Cathleen Zick, Utah	
9:30 a.m.	Break	
10:00 a.m.	Refereed Paper	
	Presider: Norma Redeker, Arizona	
	"Factors Related to Estate Planning Knowledge and Estate Planning Actions of Married Individuals"	
	Alice Mills Morrow, Oregon State.	17
	Discussants: Carole Makela, Colorado State	24
	Donna Selnick, California State	NP

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11:00 a.m. Refereed Paper
Presider: Sally Horton, Washington State
"Defining and Measuring a Consumer Conservation Ethic"
Virginia Haldeman, Nevada 27
Discussants: Donald Herrin, Utah 35
Donna Iams, Arizona 38

12:15 p.m. Luncheon and General Session
Presider: Georgianne Baker, Arizona State
"Women's World Banking and Credit Strategies in Developing Countries" Michaela Walsh, WWB, New York. . . 39

2:30 p.m. Doctoral Award Paper
Presider: Kathleen Slaugh, Brigham Young
"Managerial Response and Role Adaptation Involved for Women in Meeting a Political Volunteer Demand"
Martha A. Snider, Pennsylvania State. 44

3:15 p.m. Refereed Paper
Presider: Michelle Doiron, Arizona
"The Rural Elderly: Shopping Patterns and Attitudes"
Jane Meiners, Oregon State. 51
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Joel Rudd, Arizona. 59

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"Economic Issues and The Gray Panthers" Naomi Harwood, Gray Panthers 62

9:30 a.m. Business Meeting
Presider: Karen P. Schnittgrund, California

10:45 a.m. Concurrent Sessions
I. Reviewed Papers
Presider: Nancy Hungerford Drennen, Colorado State
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Naheel Jeries, Iowa State 66
II. Reviewed Papers
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"Consumer Education Knowledge of Prospective Teachers at Two Manitoba Universities"
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12:00 Noon Conference Closes: "Adios Amigos"

2:00 p.m. Overnight Tour to Grand Canyon

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WESTERN REGIONAL HOME MANAGEMENT
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November 6 - 8, 1985

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INTEGRATING FAMILY ECONOMICS AND FAMILY COUNSELING

M. Janice Hogan, University of Minnesota[1]

Abstract

The focus is on family economic well-being and conceptual frameworks as a professional tool. Trends in family structure and in family resource management career tracks set the stage for reviewing two conceptual models: symbolic interaction and stress. Implications for curriculum development and student competencies are included.

Introduction

What could the future be? What should the future be? How likely are our images of the future to be reality? The opportunities and challenges of developing conceptual models to guide undergraduate and graduate curriculi, Extension Service programs, and research agendas are I would like to explore with you. This conference provides us with the opportunity to share possibilities, our preferences, the potential barriers, and the probabilities of alternative paths. Consider yourself a futurist and we will envision conceptual models for path building.

Trends

Family Well-Being

First, there are some family trends that may shape our envisioned model. We need to factor in changes in family composition due to divorce, remarriage, cohabitation, teenaged parents, widowhood, and multi-generations. Also, the transition of gender roles is a major strain in families. Dual earner parents, single parent poverty, and noncustodial parenting issues are related to both structural changes and role strains. These changes are concurrent with other transitions.

Families face strains based on macroeconomic and microeconomic trends. We have pockets of poverty across the country related to farm foreclosures and the closing of plants and mines, and the time-delayed ripple affects teachers, ministers, bankers, retailers and others dependent upon a healthy farm, mining, and manufacturing economy. As these sectors decline and the high technology information and service economy expands, there are more transitions in and out of the labor market for families. At times this impedes the family's ability to manage and they may depend upon social support from the formal system such as welfare, health clinics and church services and from their informal system of extended family or friends. On the other hand, more corporate employees are resisting transfers due to "family" reasons, e.g., spouse's employment, teenager's social needs, and preferences for a stable environment.

And, we have witnessed an expansion of family services: (1) financial counseling by professionals and paraprofessionals, (2) financial planning services by professional planners and brokers, (3) family skills education, (4) family therapy, (5) divorce mediation, and (6) special needs support groups. Some professionals are focusing on developing peer counseling programs and social support self-help groups. Finally, there are increasing numbers of self-help video-tapes, books, television and radio programs and computer software to support the family members' quest for knowledge, skills, and new experiences.

Professional Trends

I wish that I could report that there is a nationwide trend of increasing numbers of undergraduate and graduate students focusing their academic program on family economics and family resource management. Why isn't this a trend? What are the barriers? We need some insight into the supply and demand problem of our profession if we are to effectively serve families.

The new interdisciplinary organization, the Association for Financial Counseling and Planning Education (AFCPE), provides a forum to chart the career paths of financial counseling and financial planners. Hopefully, a trend toward more professionals in family resource management is being created. Professors such as Edwards, Mason, and Poduska of Brigham Young University, Mau of San Francisco State University, and Williams at Purdue University have shared their experience and vision in AFCPE proceedings. Some are working to integrate family economics and family counseling frameworks.

Edwards (1984) writes that knowledge in both financial subject matter and about individuals and families is necessary in the curriculum aimed at improving family well-being. She said:

> In the past, we could get by with teaching students about family financial management...knowing that the majority of them would be using the information in programs where they, too, would be teaching others about family financial management... We now found ourselves having to teach students how to help families and individuals solve their financial problems. (p. 34)

Wenzel (1984) from Minnesota, Corporate Manager of Employee Assistance Programs at Honeywell,

[1]Professor and Head, Family Social Science

goes further than the other AFCPE writers in proposing the process competencies of a financial consultant and eductor. He states:

> As a financial counselor, you don't have to get very far into a situation to realize that the barriers to success are not in the finances, but in the person...(E)ffective financial counseling involves a pendulum alternation between process and content, between reviewing the barriers, feelings, and issues then talking about money and cashflow and leverage...To not do this is like trying to have hardware without software...Either alone is useless. (p. 14)

Reacting to the two-track framework to prepare financial counselors and financial planners, Helmick (1985) proposed that the financial educator be recognized as a third viable option. She recommended the designation "financial management assistance." From my observation of the St. Paul-Minneapolis agencies and corporations with employee assistance programs, they are moving to supplement their counseling/therapy staff with educators. They recognize that some of their clients need counseling, some need nonformal classes, and some need both.

There is a demand for family resource management professionals with research and program evaluation skills. While Extension and resident faculty have for some time needed to be educators, researchers, and evaluators, now agencies and corporations are giving priority to these competencies. I propose that we educate all of our students in methods of inquiry that build research and program evaluation competencies. Justifying programs and the effectiveness of the professional's role is more and more standard operating procedure.

Another trend that appears to be emerging is that of paraprofessional consultants and peer counseling. In 1983, the Minnesota Extension Service developed a family financial management budget consultant program to assist the unemployed mining families on the Iron Range. One of our Master's level graduate students, a former paraprofessional, was employed to develop, supervise, and evaluate the program. She now heads Extension's Project Support, the farm family crises program. In the urban area, a county court system has allocated money to study the effectiveness of their peer counseling divorce mediation program. Their court employed mediators and counselors lack these research evaluation skills, so they will contract for an experimental design research project.

Which of these trends should we use to chart our future? How can we be trend setters or influence the direction of trends? Since our profession is committed to improving the well-being of families, our vision should be focused on their needs. What are their needs for education and for counseling/therapy, mediation? What are our needs if we are to effectively assist them to improve their family well-being?

Conceptual Frameworks

Generally speaking, each research study, textbook, course, and program in family resource management contributes to better understanding of family functioning, hence leading, potentially to improvement of family well-being in the long run. And, our academic field is not specifically bound to any particular conceptual framework or theory. The same can be said for the related field of family relationships. The concept of family well-being can only partically be explained within the family economic frameworks and the family resource management frameworks. The same can be stated about the frameworks used in family relations, e.g., family development and symbolic interaction. Unifying the family social science specializations are several conceptual frameworks and theories, e.g., family systems, ecosystems, exchange, and stress.

To illustrate the richness of understanding which comes when we integrate frameworks, I will share part of a newspaper editorial in response to the farm and rural family economic crisis. My family relationships colleague, Paul Rosenblatt (1985) wrote:

> Money gives us resources to cope with most of life's problems. A family short on money is short on resources to solve many problems, and that can undermine family relationships. Families can be a strength in life but they can also make it hard to change when change would help. A family with unemployment problems may not want to move away from relatives even though moving might be the only way to get decent jobs. A married women may be held back or hold herself back from becoming the family's chief money earner because it doesn't seem right to her or other family members...Even individuals in trouble may not want to do what needs to be done. People in economic trouble often feel ashamed and don't want to face up to their problems or ask others for help...it is important to recognize that there are many, many families struggling with serious economic problems. The first step toward helping them help themselves is understanding that their plights are real and unlikely to go away without great effort.

Symbolic Interaction

The symbolic interaction framework is helpful in understanding family economic and resource management behavior. Communication, role taking, negotiation, and other concepts can be especially useful to professionals in financial counseling, planner, and education career tracks. How do we communicate effectively to reach goals when there are divergent motives? For example, saving for the down payment on a house may be a shared family goal for both the husband and wife but one spouse may be motivated because of the desire to move closer to children from the first marriage

and the other spouse so they can have greater privacy. How do these divergent motives affect their decision to invest in a house?

The essence of symbolic interactionism is that the self arises through the reflected appraisals of others from social interaction. There are three components of self: (1) your social meaning--the shared meaning you have with others, (2) your social value--the perceived evaluation you have by others, and (3) your feeling--the emotions of pride, shame, joy, saddness, etc.

The process by which these components of self emerge is the reflective cognitive process called role-taking. Our role-taking progresses developmentally from simple early play, e.g., taking the role of mother or father in make-believe shopping, to more sophisticated multiple roles of spouse, parent, employee, volunteer, relative, friend, student, etc. Over time, we internalize complex scripts for these roles which consist of interactions of self, others, and situations.

Role consensus and role transitions are relevant concepts in understanding family economic behavior. The level of role consensus is related to contemporary household economic issues such as: who will do the household and childcare work, who will be involved in which financial decisions, and who will leave their job to care for a sick member of the family. When spouses agree on what they expect of each other's role, there is high consensus. Role transitions refer to the dynamic nature of family life over time and includes the ease or difficulty of moving in and out of roles such as new parent, employee, or care taker for elderly parent. These role variables are important in understanding and improving economic functioning in families.

An assumption of this framework is that we live in a symbolic environment as well as a physical environment and that we communicate symbolically. Children in our culture, for example, learn early that the acts of earning, spending, and saving money have meaning beyond an economic conceptualization. Anger, shame, guilt, grief, and fear are emotions associated with dollars and cents.

Stress Framework

The stress framework is particularly useful to better understand families facing financial management problems (Figure 1). Of course, stress is not just linked to problems but can be a growth producing positive outcome.

One way to begin looking at family financial well-being is by noting that it does not exist in a vacuum. Rather, we need to be concerned about financial well-being following, and relative to, a pile-up of demands with which the family has to cope. These demands may be normative, i.e., part of the normal development of a family such as marriage, transition in and out of a job, family relocation or birth of a child.

Stressor events may be nonnormative events such as the death of a family member, an earthquake or flood, accident or disability. Internal family strains, such as difficulty in the noncustodial parenting role, financial management conflicts, and changes in relationships, are more continuous in nature but may be affected by a pile-up of demands from a nonnormative stressor event.

Stress may come from positive events as well as from an accumulation of strains. Family vacations, for example, may create strain because of the amount of togetherness or lack of apart time. High income in dual earner families may create the opportunity for investment but the lack of time, information, and family cohesion may create a stressful situation.

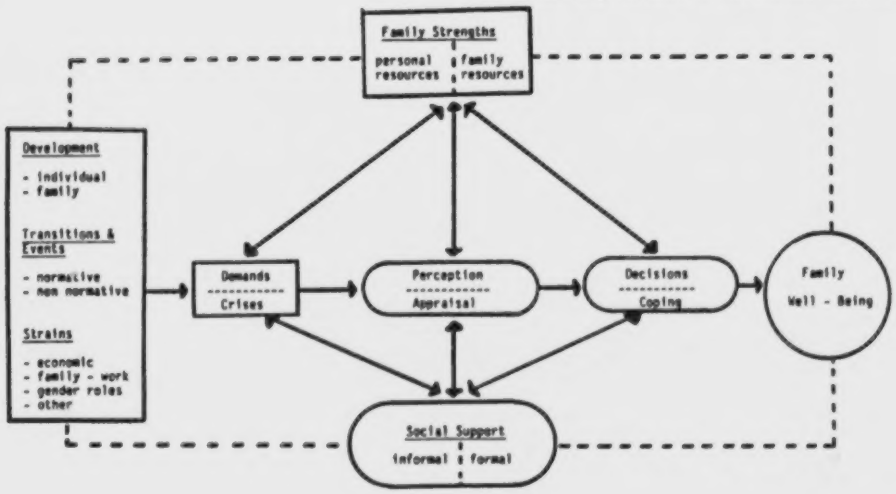

Figure 1. A Stress Model

Role strain is the stress generated within a person when he or she either cannot comply or has difficulty fulfilling one or more role obligations. A moderate level of distress occurs when we cannot get everything done that we "ought" to be doing such as paying the bills on time. This is uncomfortable and frustrating but not a crisis situation. In contrast, a high level of strain is more likely to be related to job loss, unexpected care of an elderly relative, or other combination of changes. This is sufficiently intense to get in the way of other things and triggers feelings of guilt, anxiety, and distress.

Having to deal with this pile-up of external and internal demands, the central questions are: what makes some families more resilient or more adaptive than others and what knowledge, skills, and other resources do families need to better function?

As the model shows, there are some mediating factors between demands and outcome: (1) family strengths, including personal resources (e.g., knowledge, earning skills, health) and family resources (e.g., income, communication, cohesion, flexibility), (2) social support, including formal support systems (e.g., Extension Service, welfare agencies, health clinic, church, schools) and informal support systems (e.g., friends, work mates, extended family), (3) perception and appraisal, including perceived severity of the situation and appraisal of family's capabilities to meet the demands, (4) decision making and coping, including if it is a choice situation, values in conflict, and coping behavior.

Dynamically, the processes of adaptation to multiple demands is even more complex since it may tend to deplete some resources, affect perception, appraisal, and decision making, and impact on the economic, relational, physical, psychological, and/or social dimensions of family well-being. Finally, well-being is not only an outcome variable, but also generates change in family strength and social support through feedback loops. This systems approach recognizes that a change in one part of the family system, given enough time and magnitude, will affect the whole system. Family crises which result in a decrease of family resources in the short run, may be growth producing and increase their strength and well-being in the long run.

Perception is one of the concepts in both the symbolic interaction and stress frameworks. And, in the family economics literature, there is strong empirical support for the proposition that perceived adequacy of income makes a greater contribution to family well-being than does actual income (Shull: 1983). Schnittgrund (1985) states the need for future study:

> Research is needed to help determine how perception impacts family characteristics and family responses to economic and social conditions...(This would) further enhance our understanding and ability to develop programs that help families handle financial crisis and thus increase family economic well-being. Currently a greater understanding of how farm families cope with financial crisis would greatly increase our ability to develop Extension programs to help farm families resolve their financial problems. (p. 7)

Marlowe and Sproles (1984) also make a strong case for integrating the family-consumer economic and family relationship frameworks. One of the contributions of their paper was to illustrate the interrelationship of financial and economic issues with family relations. For example, they suggest that financial planners with knowledge of concept interrelationships will be more skilled in working with families who express goals that appear to be unrealistic or inappropriate for the family's well-being. On the other hand, they state that family relations professionals who work with battered wives would profit from understanding the link between limited financial resources and leaving the relationship. They recommend that professionals in family-consumer economics and family relationships work together as an interdisciplinary team.

At the graduate level, I would recommend that students who who want to be financial counselors, planners, educators, and/or researchers have one or more courses with different conceptual frameworks. The family development, symbolic interation, and family systems/ecosystems frameworks would give added knowledge to professionals in all of the above career tracks. The central task in studying these frameworks is to determine their usefulness in producing new knowledge aimed at improving family well-being.

Conclusion

What could the future be? What should the future be? My preference pattern is for an integrated curriculum of family economics and family relationships. Why? Because I believe that family needs are more complex and dynamic than our conceptual models, our text books and our curriculum.

What do you see as the opportunities and challenges in developing conceptual models to guide new career paths? What are your preferences? How will we market our programs? Let's continue talking of possibilities, preferences, and probabilities. I am most interested in your vision of the future.

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Discussion: Integrating Family Economics and Family Counseling

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I have been asked to respond to the practical aspects of integrating family economic concepts and family conseling from the Extension perspective. First, I would agree that family and individual needs are more complex and dynamic than the conceptual models, textbooks, and curriculum materials we are using at this time. As Extension professionals, we must deal continuously with developing techniques that will help us meet those same family needs. This means that we must be able to integrate family economic elements and family counseling.

The opportunities for Extension to provide counseling are great but we are being challenged, now more than ever, to prove why we should be responding to these opportunities. When we think about the training that students as professionals need to meet these challenges and opportunities, we need to go beyond what we did in the past. As Edwards (1984) states, providing students with financial information that they will pass on is not enough. "We now find ourselves having to teach students how to help families and individuals solve their financial problems." I would take that one step further and say that in Extension they must also be able to train others to help families and individuals solve their financial problems.

The trend toward paraprofessional consultants and peer counseling is prevalent in Extension and many of us are starting to use this concept for teaching financial management. For example, we have a program in California called Money Sense where we are training enlisted military personnel and spouses to provide peer counseling in financial management. The students who take jobs in Extension need to be trained to develop, implement, and administer this type of program. In addition, they need to be trained in methods of inquiry that build research and program evaluation competencies. Research is becoming a central element of the Extension worker's responsibility at both the county and state level. These skills will work hand in hand with the program evaluation data that must be collected and used to strengthen our programs. When we talk about marketing ourselves, it is very important to be able to say what difference our programs have made. In fact, marketing ourselves will not help if we cannot tell how our programs have made a difference.

Now, a few comments on how the interpersonal aspects of counseling affect the work of Extension when training others to be financial counselors. Again, I will use our military program as an example. Establishing a program on a military base is a unique experience in itself and we discovered that working with them gave a whole new meaning to the concepts of roles and communication. To begin with, following proper protocol in our communication was essential to the establishment and success of the program. We were not only dealing with helping the volunteers learn about effective communication with their clients, we were also concerned with being sure the proper channels were followed by us as well as by the volunteers. To help the volunteers, special training in organizing and working with groups was included as part of the training. In addition, the advisors were encouraged to make referrals to the family counseling services on base when it became apparent that their clients were having interpersonal relationship problems rather than purely financial problems. The importance of helping clients identify values and goals as a beginning step in their financial counseling was emphasized. Our evaluation of the program has since identified that the volunteers felt this was the most valuable part of the course for themselves as well as their clients. It helped the clients identify what they wanted and was a good way for the volunteers to open the communication channels.

We found early in the program that the military roles of the volunteers as well as the clients had an influence on the program. Not only did we have to deal with husband/wife roles but also with officer/enlisted personnel roles. To reach the audience in greatest need--the enlisted personnel--it was advised that neither officers nor their spouses be used as volunteers. We also could not call the volunteers "counselors" or "volunteers" as both have very specific meaning in the military (usually negative). As a result, the volunteers for this program were called "advisors."

The Money Sense Program we are conducting in California is just one example of how family economic and interpersonal relationship strategies are being combined and used in practical application. As Extension continues to move towards programs that emphasize the use of paraprofessionals and peers as counselors, the students that come to us as professionals must be trained in methodology that will allow them to develop, implement, and effectively evaluate these programs.

Edwards, Kay P. "Developing a Major in Family Financial Planning and Counseling." Proceedings, Financial Counseling Consortium, Iowa State University, Ames. October 11-13, 1984, pp. 34-40.

DISCUSSION OF
INTEGRATING FAMILY ECONOMICS AND FAMILY COUNSELING

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In exploring the possibilities of integrating family economics and family counseling Dr. Hogan has identified three very important considerations. Those considerations include present trends in family structure and function and the use of conceptual models to facilitate our understanding of the impact of these trends on family well-being. In addition, Dr. Hogan has noted a trend toward the provision of family services directly related to helping families and family members as they face both normative and catastrophic stressors.

As family economics and resource management professionals we are not at all unfamiliar with the importance of resources to families as they cope with both the practical problems of daily life and the stressors of the unexpected. We are, however, faced with many questions as to our roles as educators and researchers. As educators we must develop curriculum which will benefit students as individuals in the workplace as well as individuals as members of families and society. We must address concerns related to both undergraduate and graduate students. As researchers we must design studies which will increase our knowledge in areas directed toward improving family well-being.

In fulfilling our roles as educators and researchers, Dr. Hogan pointed out that we are first obligated to identify the changes that families are encountering. To facilitate our understanding we then may turn to a variety of conceptual frameworks. The frameworks identified by Dr. Hogan are primarily those now used by family relations professionals. Family development, symbolic interaction, and stress frameworks could be extremely beneficial to family economics and resource management professionals in giving us a more complete picture of what is happening within families as they deal with resource and consumer issues. To use these frameworks we also need to familiarize ourselves and our students with the concepts inherent to each and the relationship of those concepts to family economics and resource management issues.

I would like to add that family economics and management models can be equally beneficial to family relations professionals. Models such as those provided by Paolucci, Hall, and Axinn (4), Deacon and Firebaugh (2), Boulding (2), Sheth (5), and Becker (1) can provide frameworks to assist family relations professionals and students in better understanding questions concerned with time, energy, and money as well as family decision-making and conflict resolution strategies.

I feel that Dr. Hogan has provided us with many questions that we must address as we consider the integration of family economics and family counseling. It is one thing to identify and interface through the directions of research. It may be another, however, when we ask ourselves and our students to enter the workplace and maintain a respectable working knowledge in both areas. It is indeed a fulltime job to keep up-to-date with the changes in the factors important for family economic well-being let alone have a working knowledge and respectable skills in family counseling. To this end I suggest asking three additional questions: 1) Should there be an integration of family economics and family counseling? 2) If an interface between the two areas is deemed important, what specific content should be included? and 3) How do we go about identifying and creating that interface? Since many of us are considering family financial counseling as a curriculum and research focus I will address these questions with that in mind.

In response to the first question I personally agree with Dr. Hogan. As long as families exist in a world in which issues of family well-being and economic well-being are indivisible it seems somewhat impractical to me that as educators and researchers we ignore the relationship. I am frequently amazed as to the exclusion of family economics and resource management topics in books on family stress, divorce, marriage and so on. I am also amazed when we ignore the importance of family interaction on resource management decisions and the importance of those decisions to family well-being as opposed to family economic well-being.

Although I agree that an interface of subject matter is critical for more indepth understanding of families, I also feel that we need to be realistic in the amount of information on which we can keep current. The frameworks identified by Dr. Hogan and the ones that I have added can provide a start. They provide content for curriculum as well as variables to be operationalized in research.

The type and extent of content included in a curriculum may depend in part on the level of study and the specific career goals of the individual student. For undergraduates a broad background may be sufficient. For graduate students, however, one may expect a more indepth and theoretical perspective on the subject matter. For instance, a family's need

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for financial information may vary on a continuum between content and process. A financial counselor with the goal of relieving a family of their debt overload may discover that specific information on budgeting, credit, and savings will be sufficient. That counselor may, however, realize that the problems the family is having with excessive debt may, in fact, be symptoms of problems in family interaction. On the other hand a family counselor may recognized that family arguments over money occur primarily because the family does not have skills in financial management. A divorce counselor (or lawyer) would be well served to be aware of the financial obligations of their client based on both lifecycle and personal needs. In many cases referral may be the answer. The bottom line, however, is that it is critical that both professionals operate with an awareness of both resource management and family relations content.

As we attempt to design curriculum to meet the needs of professionals serving the families of today we need to act as well as conceptualize. Sometimes asking is the best first step in creating the interface we desire. What kinds of resource management information do counseling professionals identify as beneficial to them in their curriculums and research? How can our classes provide that information without jeopardizing our own curriculum and research goals? What kinds of information about family behavior do we feel would most benefit ourselves and our students? What classes offered by family relations and counseling programs can benefit our curriculum and research goals? As we incorporate the content of economics, business, and finance should we not also incorporate the content of family interaction in our goal of enhancing overall family well-being?

Dr. Hogan has provided us with several questions and motivations concerned with the integration of family economics and family counseling. I applaud her efforts in identifying many of the issues we face as well as some of the trends and conceptual models which may direct our thinking and decisions.

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A TEST OF THE DEACON-FIREBAUGH MANAGEMENT MODEL

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Abstract

A test of the Deacon-Firebaugh management model was done, using the sample from the NC164 study of families at the middle stages of the family life cycle. Management was measured by self-reports of specific behaviors. Management was not a significant predictor of satisfaction with economic well-being. It was a significant predictor of marital happiness and family satisfaction.

Introduction

In her review of management research, Berger (1) noted that during the 1960's a number of efforts were directed toward development of theoretical conceptual frameworks for family management. Analysis of subsequent research based on these conceptual models led her to conclude that, in the main, investigators had examined the components of management rather than the overall management process itself. Given the state of the art, she viewed theory and model testing as an important future direction for family management research.

It is the purpose of this paper to report results of a test of the Deacon-Firebaugh model of family management using data from a sample of families in the middle years.

Review

In proposing their model of the managerial subsystem, Deacon and Firebaugh (2) defined the relationship between input and outputs of the managerial system, i.e., the relationship of resources and demands (inputs) to met demands (outputs) when the inputs were processed through the managerial system. It seems an implicit assumption of the model that the input/output relationship is altered by the processing and that in fact, the relationship is a function of the managerial process. Furthermore, it can be argued that, since any goal has an unknown probability of occurring without managerial system processing, i.e., by chance, the purpose of managerial system processing (throughputting inputs) is to alter the probabilities of met demands as output.

Drawing on concepts from systems theory, Deacon and Firebaugh proposed management as a system of processes which together comprise the managerial subsystem of the family. They also classified inputs and outputs of the family managerial system. Inputs to the managerial subsystem are material and human resources and demands--goals and events that constrain resource use. Outputs are used resources, met demands and satisfaction. Throughput is carried out by the managerial system by means of its subsystems--planning and implementing. Appendix A shows the entire model. Deacon and Firebaugh's managerial subsystem is an open system with subsystems, planning and implementing, that are sequentially ordered. The planning and implementing systems are both necessary and neither is sufficient to alter input/output relationships.

The literature relating to the test of this model is small; Berger cited Heck and Douthitt (5), Heck (4) and Maloch and Deacon (7). Two unpublished articles (3, 9) have recently appeared.

Heck's (4) test used existing data, which imposed limitations on measurements, especially of throughput. Measures of management were limited to: self-perception as a planner; planning, which was scored positively if the family planned work in any one of five areas of household work; egalitarianism in decision-making; and total time spent in household production by both husband and wife. Output was measured by satisfaction levels with eleven different met demands, ranging from how clean the laundry is to how well one's children are doing in life.

Heck found some support for the Deacon and Firebaugh model: 1) planning and egalitarian decision-making were positively related to satisfaction with several outputs, 2) husbands' household production time was positively related with satisfaction with the amount of free time, and 3) one measure of the wife's planning and her household production time were negatively related to satisfaction with family outputs. Heck concluded that more empirical testing of family management frameworks is needed.

Godwin and Carroll (3) obtained data specifically to test the Deacon and Firebaugh model. Their sample was composed of 73 couples who attended a workshop. Input (resources) was measured by demographic characteristics, and demands were measured by attitudes toward management, length of marriage, and wife's employment. Throughput consisted of an 18-item scale of practices related to family financial management. Output was measured by a 10-item scale on satisfaction with consumption, savings, and the process of management. Path analysis was employed.

Results show that for wives neither attitudes nor behavior had any effect on satisfaction with the managerial process, saving or consumption. For husbands, attitudes had a significant effect on managerial behavior and managerial behavior had a significant effect on satisfaction.

Williams (9) also used existing data, the Indiana sample of the NC-128, Quality of Life as Influenced by Area of Residence, study. Inputs were composed of demographic characteristics and household production. Throughput consisted of a

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14-item scale on general types of management behaviors, such as "coordinates activities" and "plans realistic sequence of activities." Output was measured by a scale combining satisfaction ratings in eleven different domains, ranging from income to number of children, sense of control and satisfaction with quality of life. Both multiple regression and path analysis were used.

Results were that "Personal management contributed significantly to resource satisfaction, holding income and other conditions constant" (p. 19). Path analysis showed that resource satisfaction and sense of control had the strongest direct influence on satisfaction with quality of life. Resource satisfaction was the most important direct influence on sense of control. Management was the most important direct influence on resource satisfaction for men and Anglo women.

Method

Data Collection

Data used in this analysis were collected in Minnesota for the North Central Regional Research Project #164, "Stress, Coping and Adpatation in the Middle Years of the Family Life Cycle." The data set included demographic characteristics of the family as well as measures of life satisfaction, family functioning, stress and coping, needed to study the impact on the family of the transition to post-parental stages of the family life cycle. The data were collected from a stratified random sample of households in rural, rural nonfarm, and rural farm areas drawn from a list of Minnesota households with children in which the wife was between 35 and 60 years of age. The list was supplied by a direct mail company. Details of the sampling design are reported by Norem (8).

Responses were received from 29% of sampled households. However, many households identified by the direct mail company as meeting the eligibility criteria (husband-wife family, wife between 35 and 54 years of age, at least one child at home) were actually ineligible due to death of either spouse or single parent status. Therefore, the response rate of households that met the eligibility criteria is considerably higher.

Data were collected by a mailed questionnaire containing structured self-reports answered separately by both husband and wife. Only wives' satisfaction responses were used in this study because a) no statistically significant difference between wives and husbands on the most salient variables was found in paired and aggregate t-tests, b) the purpose of this paper is to test a model, not to provide descriptive data, and c) there were more responses from wives than husbands.

Demographic characteristics of wives are given in Table 1. All respondents are white. This sample is predominantly middle and upper middle income, with over representation of farmers, professionals and highly skilled occupations.

Table 1: Characteristics of Wives

Demographic Characteristic	
Mean Age	46
Mean level of education (in years)	13
Median income	$32,333
Employed:	
Full time	30%
Part time	30%
Mean number in family at home	3.7
Type of residence (n):	
Urban	49
Rural farm	59
Rural	105
Missing data	10

N = 223 married women, ages 35-62

Measurement

To provide a test of the model, measures of input, throughput and output were needed. Measures of personal resources (health status, human capital), family resources (per capita family income, permanent income), and community resources were obtained.

Health status consisted of the mean of husband and wife self-reports on a five-point scale, ranging from not at all healthy to very healthy. Human capital was measured by the mean number of years of school completed by husband and wife combined.

Permanent income was measured by income expectations for next year and for the next five years. Total family income was measured by the husband's response, because the husbands gave more complete data on this item.

Community resources were assessed by a three-point scale that assigned low community economic resource levels to farm communities and high community economic resource levels to urban communities. No direct measure of family goals was made. It was assumed that two primary goals of families are a satisfactory family life and economic situation, as other research has confirmed (6). The number of family members at home was taken as an indicator of demand.

Throughput

To assess throughput, a self-report instrument tapping planning, implementing and facilitating behavior was used. Eleven items were included on the questionnaire, covering the Deacon and Firebaugh model's domains of standard setting, action sequencing, adjusting, checking, facilitating and using feedback. Factor analysis did not show a pattern of following these domains. By factor analysis, the management behavior scale was reduced to six items, which load on one factor, management. Alpha reliability on the final six-item scale is .67. Items comprising the management scale are given in Exhibit C.

Exhibt 1: Management Scale

1. We make advance plans about how to use our time and money.
2. We routinely check over last month's spending to see if we spent more than we planned.
3. We use a written budget.
4. We record date and amount paid on bills we have paid.
5. I spend time checking on my records at regular intervals.
6. I found some useful "tricks" that I use to help me keep track of my spending.

All are behavioral measures answered on a five-point scale, ranging from almost never to almost always. Distribution of scores on the management scale approximates a normal curve. The range is 6-29; standard deviation is 4.65. The effect of social desirability appears to be minimized due to the use of behavioral and specific items.

Output

Three aspects of met demands as output of the managerial system were measured: satisfaction with the family's economic situation, satisfaction with family life and marital happiness. Both satisfaction with the economic situation and family life were measured by means of seven-point Likert-type scales summed across four items each. For the economic situation the items were: the way your family manages its money; your family's present standard of living; your total family income; your progress toward improving the quality of your life the last five years. For satisfaction with family life the items were: your family life; your relationship with your spouse; your relationship with your children; the relationship your children have with each other. Marital happiness was measured by a single item answered on a seven-point Likert-type scale.

Analysis

It was felt that the most appropriate test of the model was assessment of the extent to which total managerial subsystem activity predicted output when inputs were held constant and that for this test managerial system activity must be regarded as an integrated whole. Multiple regression was selected as the statistical analysis of choice with demands, resources and the management scale as independent variables and satisfaction measures as dependent variables.

Results

Results of regression of managerial behavior scores on satisfaction with economic situation, family life and marital happiness are shown in Table 2.

Table 2: Regression of satisfaction with economic situation, family life and marital happiness on management behavior score.

Independent Variables	Economic Satisfaction beta	Marital Happiness beta	Family Satisfaction beta
Health (husband and wife)	.32*	.22*	.25
Number in family at home	-.19*	-.02	-.15
Community resources	-.02	.01	-.07
Permanent income	.10	.09	-.03
Total family income	.08	-.15	.00
Human capital (husband & wife)	-.04	-.06	.00
Management	.01	.26*	.27*
*p=.01	R^2=.14	R^2=.15	R^2=.15
	F =3.09	F =3.17	F =3.2
	p = .02	p = .01	p = .00

Taken together, the resource, demand and management variables explained about 15% of the variance in the dependent variables.

Managerial behavior as measured by the instrument developed for this study did not predict satisfaction with economic situation. It did predict marital happiness and satisfaction with family life. For marital happiness and family satisfaction, managerial behavior accounted for more of the explained variance than any other variable. For satisfaction with economic situation, health and family size were most important.

Conclusion

Results of this study demonstrate support, in part, for the Deacon-Firebaugh management model. That it does not predict greater satisfaction with economic situation is a finding that warrants further investigation. If management behavior does not enhance economic goal attainment, family management theory would need revision.

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PERCEIVED INCOME ADEQUACY AND SELECTED FINANCIAL MANAGEMENT AMONG FAMILIES IN MEXICO

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Abstract

This study explores the perceived adequacy of families' incomes and selected financial management practices (food budgeting, debt, saving) in Mexico. An interview survey was used to gather socio-economic and demographic information from 276 families. There were major differences in responses for income adequacy and between income levels. Implications of the findings are discussed.

Introduction

Financial security is an important goal of families worldwide. However, in developing countries, it is often difficult to meet even basic needs, especially within the uncertainty of an inflationary condition in the economy. For example, Mexico's inflation rate rose from 17% in 1978 to 29% in 1981. High inflation rates in a developing economy can cause difficulties for households trying to cope financially in changing economic conditions (Sinclair, 1982).

This study explores the relationship between the adequacy of families' incomes, as perceived by the families themselves, and their income level, employment, and selected financial management practices (food budgeting, debts, and savings) in communities in Mexico.

Review of Literature

Much of the research on family income in Latin America is based on concerns about poverty conditions. Although Mexico has achieved higher levels of economic development compared to the Third World in general, poverty is a reality. The GNP per capita in 1980 was $2,317 for Mexico (Sinclair, 1982). Four studies on income distribution in Mexico done between 1963 and 1977 showed that the unequal distribution of income in the population has not changed much since 1963 (Bergsman, 1980) and is a major economic problem.

Definitions of income adequacy and poverty are based on evaluations as to the minimum adequate levels of essential basic needs and welfare and are, therefore, normative. However, income adequacy is also relative in that it relates to a particular social setting with a given set of values which are manifest in a particular way of life (Altimar, 1982). Research has found that the income adequacy of a household, whether assessed subjectively by a respondent or objectively by budget formulators, explains variation in quality of life indicators. However, subjective adequacy was found to account for more variance in satisfaction with quality of life compared to objective measures (Ackerman & Paolucci, 1983). Subjective perceptions of adequacies may differ from objective measures as inflation changes economic conditions (Ackerman & Paolucci, 1983). Other research (Metzen, 1975) also has found that subjective perceptions of income adequacy do not correlate totally with government established standards.

Income surveys based on household responses are scarce in Latin America. Comparisons between studies are difficult due to differences in data acquisition and methods of analysis (Musgrove, 1978). Under-reporting of income occurs frequently in budget studies due to the use of income in kind and informal transfers and also deliberate coverage of true income. Several sets of adjustments in income data have been used (Bergsman, 1980).

One method to assess income adequacies in developing countries is to calculate a minimum food budget and then to compare that amount to other consumption expenditures. Consumption studies show that poor households, as their income increases put a higher percentage of income into non-food items (Orshansky, 1965). The group which spends more on food than the typical minimum budget is in the range where income may not be adequate to meet family needs. It has been calculated that in Latin American urban households, between 40% and 50% of the total consumption expenditure is for food. In Urbano, Mexico, in 1967 the average expenditure was 34.4% (Musgrove, 1978). Poor Mexican families in 1975 reported spending about one-half their income on food and most of the rest on housing and clothing. The remaining 20% of their income was left for all other expenditures (Bergsman, 1980).

Results of household budget surveys done between 1966-1972 in South America indicate that with inflation, a large share of spending on durable goods was considered as savings. The surveys also found that there were no clearly defined levels where savings begin (Musgrove, 1978). Frost (1980) has reported financial management practices among households in Guatemala. Only 25.15% had a record of expenditures, 19% had borrowed during the year, and 23.34% reported savings. The most important influential demographic variables related to financial management practices are education of the husband, education of the wife, and family income. Little formal education characterizes the heads of poor families in Mexico. In fact, 75% of these household heads have less than four years of schooling. The 1968 and 1975 Mexico studies most closely associated education of the head of the household with income differences (Bergsman, 1980).

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The examination of household economic conditions in Latin American countries is a complex problem involving both subjective perceptions of adequacy and economic measures and comparisons. The present study will investigate these issues for Mexico.

Methodology

The data for the present study are from a larger study whose purposes were to identify factors influencing the health and nutritional status of preschool children. This study was sponsored by the Ezra Taft Benson Agriculture and Food Institute of Brigham Young University.

Sample and Data Collection

Survey questions were designed to gather socioeconomic, demographic, dietary, and morbidity information from these families. The instrument was analyzed, refined, and pretested with 15 families. The 47 item survey was administered to 276 families by Spanish speaking trained interviewers. Interviews lasting approximately 40 minutes were conducted in the families' homes during May, 1983. The respondent was either the male or female household leader who was home at the time of the interview. The data were collected from a sample of families who reside in 10 small cities in the state of Hildago, Mexico. All families had at least one child.

Data Analysis

Information about socioeconomic variables was collected. The variables most relevant to this study were family monthly income, years of education of the father and mother, employment status of the head of the household, savings and debt, and perception of income adequacy. Perception of income adequacy was determined by asking the families if they felt their income was sufficient to provide for their needs in the following areas: food, clothing, housing, transportation, health care, education, church offerings, and vacations. Responses were either affirmative, indicating their income met their needs, or negative, indicating their income was not adequate.

The reported income levels were divided into quartiles in pesos per month for analysis. These groups were: less than 12,000, 12,001 to 21,000, 21,001 to 34,000, and greater than 34,000. The exchange rate for Mexico at the time was 147 pesos to the US dollar. Frequency distributions were calculated and the statistical tests used in the analysis of the data was chi square.

Findings

Socioeconomic Variables

Many socioeconomic levels were represented. The mean monthly income was 28,646.24 pesos with 65% of the households below that level. The mean household size was six persons with five persons as the most common household size.

The highest percentage of heads of household were employed as laborers, both skilled and unskilled (58%). Fewer were professionals (12%) or owners (21%) and approximately nine percent were unemployed. The levels of income varied according to the employment status of the household head. The majority of those that were unemployed or looking for work or retired were in the lowest income quartile, laborers were in the low middle quartile, skilled laborers were in the high middle quartile, and owners and professionals were in the highest. The differences in income between the employment group was significant at .001.

The education level for husbands averaged 8 years and wives 7.2 years. The differences in education between the quartiles of income were significant at the .001 level for both husbands and wives.

Financial Management Practices

The Mexican households reported a mean monthly food cost of 12,380 pesos which is approximately 54% of their monthly income. The differences between the four levels was significant at the .001 level for the amount of money spent on food. As income increased, the amount of money spent on food also increased. (See Table 1.)

Table 1. Mexican Families' Monthly Food Expenditures by Income Level*

	Income Levels			
Expenditure (pesos)	Lower Quartile	Low Middle Quartile	Upper Middle Quartile	Upper Quartile
0 - 3000	62.1	35.2	20.0	8.3
3000 - 4000	22.4	25.4	32.3	3.3
4000 - 6000	5.2	26.8	21.5	30.0
6000 - high	8.6	11.3	24.6	56.7

* = Difference between groups significant at .001

Almost 50% of the households reported they had some money saved. The highest income group had the most money saved. This difference in saving by income group was significant at the .001 level. (See Table 2.)

Table 2. Mexican Families' Total Savings by Income Level*

	Income Levels			
Amt of Savings (pesos)	Lower Quartile	Low Middle Quartile	Upper Middle Quartile	Upper Quartile
0 - 1000	72.5	61.9	50.0	34.7
1001 - 15,000	10.9	11.3	17.7	4.3
15,001 - 30,000	4.7	7.0	19.4	11.6
30,001 - 170,000	10.9	19.7	12.9	49.3

* = Difference between groups significant at .001

Mexican households reported 36% being in some form of debt beyond housing mortgages. The highest income level also had the greatest debt compared to the other levels (significant at .01 level). (See Table 3.)

Table 3. Mexican Families' Total Debt by Income Level*

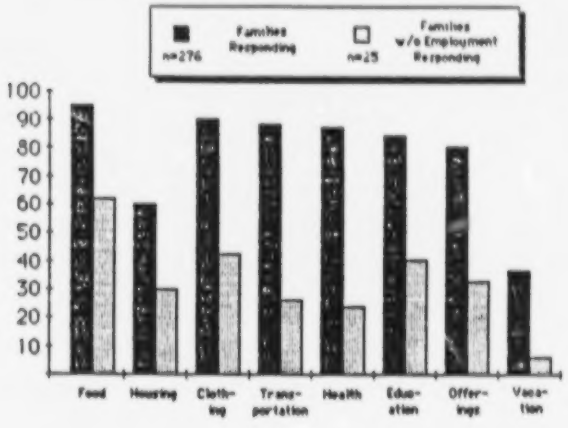
Amt of Debt (pesos)	Income Levels: Lower Quartile	Low Middle Quartile	Upper Middle Quartile	Upper Quartile
0 - 1000	54.3	60.6	61.0	54.3
1001 - 15,000	30.0	25.4	18.8	14.3
15,001 - 30,000	8.6	8.5	6.3	7.1
30,001 - 550,000	7.1	5.6	14.1	24.3

* = Difference between groups significant at .01.

Perceptions of Income Adequacy

Over 80% of Mexican families believed that their income was adequate for food, clothing, transportation, health care, education, and church offerings. Thirty-five percent reported income adequate for vacations. For households with an unemployed head of household (9% of the sample) perceptions of income adequacy were lower for all categories. (See Figure 1.)

Figure 1. Percentage of Families Responding Income Adequate for Expenditures



When families' perceptions of income adequacy were analyzed by income level, differences in perceived adequacy became apparent. In all categories, as income increased, there was an increase in the number of households reporting that their income was adequate. The categories with the most significant differences were vacations (.001) and transportation and medical care (.01). The remainder of the categories were also significant. (See Table 4.)

Savings and debt levels appeared to have little relationship with perceptions of income adequacy. The only significant associations were with perception of income adequacy for vacations (.001 and .05, respectively) and, in the debt category, for housing (.05). The education levels for husbands and wives were significant for four and three categories, respectively. Again, vacations had a highly significant relationship (.001). The amount that families spent on food was associated with perceptions of income adequacy in three categories. Vacations was the most significant. (See Table 4).

Table 4. Analysis of Variance (F Values) for Income Adequacy Categories by Relevant Variables

Categories of Income Adequacy	Total Monthly Income	Savings	Debt	Wife's Education	Husband's Education	Food Costs
Food	4.15*	0.59	0.19	6.93**	0.31	0.58
Housing	4.57*	2.22	4.25*	5.11*	11.98***	0.28
Clothing	5.08*	2.34	0.26	1.98	1.15	3.22
Transportation	9.32**	3.63	1.13	3.14	2.45	7.15**
Medical Care	9.34**	3.36	1.03	2.36	5.90*	4.60*
Church Offering	5.17*	3.11	1.86	0.90	7.79**	3.82
Education	4.83*	0.24	0.49	0.03	0.09	1.61
Vacations	46.99***	24.65***	5.26*	27.66***	44.96***	17.64***

* = significant at the .05 level.
** = significant at the .01 level.
*** = significant at the .001 level.

Discussion of Findings

These findings suggest additional topics for investigation as well as provide significant insight. For example, the majority of Mexican families studied perceived their income was adequate for all the categories except for vacations which only the majority of the wealthiest families felt they could afford. Housing was the second lowest category which only 65% felt they could afford. This is an important finding indicating that the housing situation, in light of family budgets, needs further investigation.

The findings also show that perceptions of income adequacy have a close relationship with actual income levels for: transportation, health care, and vacations. Clothing and education are also correlated, but not as closely. All of the other categories are significantly correlated (.05) but not as closely. None of the other variables (savings, debt, money spent on food, education of husband and wife) were as closely related to subjective perceptions as income.

Those families without employment showed lower perceptions of income adequacy for all categories. This finding would be expected as lack of employment would indicate lack of income in most cases. However, these families appear to be meeting many of their needs without income from employment. The families could be meeting their needs through savings, unreported income or inter- or intra-household transfer of goods. This situation deserves further investigation.

Musgrove (1978) suggests that in Latin American urban households between 40% and 50% of the total consumption expenditure will be for food. The present study has found that, at the time of the surveys, the Mexican sample spent an average of 54% of their monthly income on food. This suggests that Mexico in its current inflationary situation is doing poorly economically according to those estimates.

Conclusion

This study indicates that the economic status of households in Mexico is stressed due to inflationary conditions. Perceptions of income adequacy indicated that not all families felt their incomes were adequate for their basic family needs. Other financial indicators of the stressed situation were: high percentage of income spent for food, only about half the families had any savings and over one-third of the families are in debt beyond housing mortgages. The findings in this study may be valuable to policy makers and curriculum planners in formulating future directions. Subjective perceptions of income adequacy by categories could provide information as to which financial needs are not being met. Public policy may be able to alleviate some of the economic burdens. For example, many households reported that their incomes were not adequate for housing. The correlation between education and income should be noted and programs designed to improve educational levels. Vocational training may be important to help alleviate unemployment. Also the high percentage of income spent in food costs might be reduced through gardening, home production of food, and food storage.

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FACTORS RELATED TO ESTATE PLANNING KNOWLEDGE AND ESTATE PLANNING ACTIONS OF MARRIED INDIVIDUALS

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Abstract

A Pearson Product Moment Correlation was used to assess factors related to estate planning knowledge and estate planning actions of married men, married women and four subsamples. T-tests were used to compare knowledge scores of extension estate planning workshop participants and nonparticipants. Implications for estate planning education programs and for future research are discussed.

Introduction

The goal of the Extension Home Economics Program is the improvement of the quality of life for individuals and families through the enhancement of their economic and social well-being. One of its priority areas is Family Economic Stability and Security; one Oregon program within this priority area is family estate planning. Approximately 900 individuals attended estate planning workshops taught by the Extension Family Economics specialist between September 1, 1981 and May 31, 1983. Each workshop consisted of two 2½ hour sessions. The first session topics were family estate planning needs and goals, property ownership alternatives and property distribution at death. The second session topics were the probate and tax costs of estate settlement, and tools and techniques to minimize costs. The workshop goals were to increase estate planning knowledge and help people determine what, if any, estate planning was needed in their situation.

Research on factors related to estate planning knowledge and estate planning actions is useful to evaluate the workshops and to develop and promote future estate planning publications and programs. Most research on the estate planning of individuals has focused on factors related to will making (testacy). Studies report people with wills are older, have more income and more education than people without wills (1;2). With each decade of life the number of individuals with wills increases. However, the life period during which most individuals make wills is 31 and 45 years of age (2,p288). People write wills because of personal circumstances or change in personal circumstances and perceptions of the benefits of a will (2,p202). Willmakers have a desire to protect the well being of spouses and children (2,p225).

The purposes of this study are to identify factors related to estate planning knowledge; to determine whether or not approximately eight to sixteen months after completing extension estate planning workshops participants have greater estate planning knowledge than a matched sample of nonparticipants; to determine the factors related to taking estate planning actions; and to determine whether approximately eight to sixteen months after completing extension estate planning workshops participants completed more estate planning actions than a matched sample of nonparticipants.

Methodology

Data Collection

The survey instrument was prepared with assistance from the Oregon State University Survey Research Center. After pretesting with extension estate planning workshop participants who would not be included in the sample, revisions were made.

The sample was selected from two sources: adjusted attendance records from extension estate planning workshops and county telephone directories. The attendance records were adjusted by removing incomplete or illegible names and/or addresses, removing those names which did not appear on attendance sheets from both sessions and listing married couples as one household. Every other household was selected from the adjusted attendance list. The households from telephone directories were systematically selected (every nth name) by the O.S.U. Survey Research Center using telephone directories for the counties in which estate planning workshops were held.

Estate planning surveys were sent to 404 households. Two surveys were sent to each household; one to be completed by the wife and one to be completed by the husband. One hundred and sixty-one households were sent surveys in January 1983; attendance records from workshops held between September 1981 and April 1982 were used to select the workshop portion of the sample. Two hundred and forty-three households were sent surveys in January 1984; attendance records from workshops held between September 1982 and April 1983 were used to select the workshop portion of the sample. A total of 808 estate planning surveys were mailed. Four hundred and six individuals returned surveys. After adjusting the sample for surveys returned by the post office as undeliverable and for individuals who replied they had no spouse, the overall response rate was 54%. This response rate assumes that all nonrespondent households were husband/wife households; therefore, the stated response rate is likely to be underestimated. The response rate of households selected from workshop attendance lists was 77% and the response rate of households selected from telephone directories was 37%.

Most of the respondents were married (91%). The remaining respondents were single, never married (2%), divorced (3%), widowed (3%), and separated (1%). Since the numbers of nonmarried respondents were small and therefore not representative of those populations, they were excluded from this analysis. The sample analyzed included married men and married women. The responses of the married men and the married women were analyzed separately. The sample of 173 married men and 175 married women was further divided into four subsamples: men and women with minor children and men and women with no minor children. Minor children are those under age 18. Each subsample was divided into extension estate planning workshop participants and nonpar-

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ticipants. Participants were identified by the response to the survey question "have you ever attended any meetings about estate planning, or not?" and if so, "what group or agency presented this meeting?" Figure 1 summarizes the sample and subsample cell sizes.

A basic estate planning knowledge score, probate knowledge score and total knowledge score was determined for each respondent. The basic estate planning socre represents knowledge about those things generally discussed related to estate planning. The probate knowledge score represents more technical knowledge about the effect of property title on the method of distribution at death. The total knowledge score was a combination of the basic score and probate score. The possible total knowledge score ranged from low knowledge (0) to high knowledge (10).

The basic estate planning knowledge score ranges from 0-6. This was determined by giving a respondent one point for correctly indicating agreement or disagreement with each of six statements about estate planning. The statements and the correct answers follow.

> When a married man dies without a will, his wife may not inherit all his estate (agree).
>
> Estate taxes are often different depending on whether the deceased was married or divorced, never married or widowed at the time of his or her death (agree).
>
> Careful planning can lower the taxes that will be owed on an estate (agree).
>
> Life insurance is sometimes included in a person's taxable estate (agree).
>
> When all a person's property is owned in joint tenancy, there is no need for a will (disagree).
>
> When there is no will, the court distributes an estate in the way it feels is best for a deceased person's family (disagree).

The probate knowledge score ranged from 0-4. This was determined by giving a respondent one-half a point for correctly indicating whether described property would or would not go through probate. One-half point was used rather than one point to give the probate knowledge score slightly less weight than the basic knowledge score. The properties described and the correct answers follow.

> Government bonds with co-owners and beneficiaries (would not).
>
> Property owned as joint tenancies with rights of survivorship (would not).
>
> The deceased's share of household goods (would).
>
> Real estate owned as a tenancy by the entirety (would not).
>
> The deceased's share of property owned as tenants in common (would).
>
> Property owned only by the deceased (would).
>
> POD (payable on death) accounts (would not).
>
> Life insurance payable to a named beneficiary (would not).

Respondents were asked whether or not they had a valid will and whether they (1) had done, (2) planned to do, or (3) definitely won't do or were undecided as to the following actions: talking to family members about estate distribution, reviewing life insurance with an expert, consulting a banker about estate planning, consulting an accountant about estate planning, consulting a financial advisor about estate planning and consulting an attorney about estate planning. Respondents were also asked other demographic and personal questions.

Data Analysis

Estate Planning Knowledge. A Pearson Product Moment Correlation was used to assess the linear relationship of the basic, probate and total knowledge scores of the married men and the married women to eight variables: age, income, estate size, number of children under 18, number of children over 18, number of financial dependents, residence, and extension estate planning workshop participation. Additionally, a Pearson Product Moment Correlation was used to separately relate the basic, probate and total knowledge scores of married men and married women with and without minor children, to four variables: age, income, estate size, and extension estate planning workshop participation. T-tests were used to compare the basic, probate and total knowledge scores of the extension workshop participants and nonparticipants.

Estate Planning Action. A Pearson Product Moment Correlation was used to relate each of the estate

FIGURE 1. Summary of Sample Cell Sizes

	Married			Married with Minor Children			Married with No Minor Children		
	Total	Extension Participant	Non-Participant	Total	Extension Participant	Non-Participant	Total	Extension Participant	Non-Participant
Men	173	79	94	59	22	37	114	57	57
Women	175	100	75	60	29	31	115	71	44
Total	348	179	169	119	51	68	229	128	121

planning actions and the total action of the married men and the married women to eight variables: age, income, estate size, number of children under 18, number of children over 18, number of financial dependents, residence and extension estate planning workshop participation. The individual actions and total actions of married men and married women with and without minor children were related using a Pearson Product Moment Correlation to four variables: age, income, estate size, and extension estate planning workshop participation.

Relationship Between Knowledge and Action. A Pearson Product Moment Correlation was used to relate total knowledge to total action. This was done for married men, married women and the subsamples: married men and married women with minor children, married men and married women with no minor children.

Results

Estate Planning Knowledge

Of the variables tested for a linear relationship to estate planning knowledge, those significantly correlated ($p \leq .01$) for at least one subsample are income, estate size and extension estate planning workshop participation (Table 1).

Married Men and Married Women. The total estate planning knowledge of both married men and married women was positively correlated with extension workshop participation. For the married women only, total estate planning knowledge and probate knowledge was also correlated with estate size. The probate knowledge of both married men and married women was positively correlated with extension workshop participation. The basic estate planning knowledge of married men and married women was positively correlated with estate size and extension workshop participation. In addition, the basic estate planning knowledge of married men was correlated with income (Table 1).

Married Men and Married Women With Minor Children. For married men with minor children all three knowledge scores were positively correlated with extension estate planning workshop participation (Table 1). The estate planning knowledge of married women with minor children was not correlated with any of the variables tested.

Married Men and Married Women With No Minor Children. For married men and women with no minor children, basic estate planning knowledge was positively correlated with income. Probate knowledge of married women with no minor children was positively related to estate size and extension estate planning workshop participation. The total estate planning knowledge of married men and married women with no minor children was correlated with income, but for the women, the total estate planning knowledge was also correlated with estate size and workshop participation (Table 1).

Extension Workshop Participants and Nonparticipants. The basic estate planning knowledge, probate knowledge and total estate planning knowledge of extension estate planning workshop participants, both married men and married women, was significantly higher than that of nonparticipants. This does not hold true for all of the subsamples (Table 2). Basic estate planning knowledge, probate knowledge and total knowledge was significantly higher for participants who were married men with minor children than for nonparticipants in the same subsample. The probate knowledge and total knowledge of participants who were married women with no minor children was significantly higher than that of the similar nonparticipants. For participants the mean total estate planning knowledge score of the married men and women was the same. Of all participants, the highest mean total estate planning knowledge score was received by the married men with minor children and the second highest mean total knowledge score was received by married women with no minor children (Table 2). The nonparticipants in these subsamples had the lowest mean total

TABLE 1. Variables Significantly Correlated with Estate Planning Knowledge.

	Basic Estate Planning Knowledge			Probate Knowledge			Total Estate Planning Knowledge		
	Income	Size of Estate	Extension Participation	Income	Size of Estate	Extension Participation	Income	Size of Estate	Extension Participation
Married Men	r=.22	r=.22	r=.24	------	------	r=.25	------	------	r=.31
Married Women	------	r=.23	r=.24	------	r=.22	r=.34	------	r=.28	r=.36
Married Men with Minor Children	------	------	r=.46	------	------	r=.40	------	------	r=.53
Married Women with Minor Children	------	------	------	------	------	------	------	------	------
Married Men with No Minor Children	r=.26	------	------	------	------	------	r=.27	------	------
Married Women with No Minor Children	r=.34	------	------	------	r=.31	r=.43	r=.28	r=.34	r=.38

r= Pearson Product Moment Correlation Coefficient

TABLE 2. Mean Estate Planning Scores of Participants (P) and Nonparticipants (NP).

	Basic Knowledge				Probate Knowledge				Total Knowledge			
	P		NP		P		NP		P		NP	
	$\bar{X}$	(s . d)	$\bar{X}$	(s . d)	$\bar{X}$	(s . d)	$\bar{X}$	(s . d)	$\bar{X}$	(s . d)	$\bar{X}$	(s . d)
Married Men	*4.2	(1.2)	3.5	(1.5)	*2.0	(.9)	1.5	(1.1)	*6.2	(1.7)	5.0	(2.1)
Married Women	*4.1	(1.2)	3.5	(1.4)	*2.1	(.9)	1.4	(1.0)	*6.2	(1.6)	4.9	(1.9)
Married Men with Minor Children	*4.7	(1.1)	3.2	(1.5)	*2.2	(1.0)	1.3	(1.0)	*7.0	(1.7)	4.6	(1.9)
Married Women with Minor Children	4.1	(1.3)	3.3	(1.3)	2.0	(.9)	1.7	(.9)	6.1	(1.7)	5.0	(1.8)
Married Men with No Minor Children	4.0	(1.2)	3.6	(1.6)	1.9	(.8)	1.5	(1.2)	5.9	(1.6)	5.2	(2.2)
Married Women with No Minor Children	4.1	(1.2)	3.6	(1.5)	*2.1	(.9)	1.2	(1.1)	*6.3	(1.5)	4.8	(2.0)

* indicates statistical significanct at $p \leq .01$; t-test analysis

TABLE 3. Variables Significantly Correlated with Estate Planning Action of Married Men and Married Women ($p \leq .01$)

	ACTIONS			
	Testacy	Consulting Accountant	Consulting Attorney	Total Action
Married Men	Age r^2 .48 Estate size r^2 .30 No. children over 18 r^2 .26	Estate size r^2 .28	Income r^2 .26 Estate size r^2 .26	Income r^2 .27 Estate size r^2 .34 Extension Participant r^2 .22
Married Women	Age r^2 .56 Estate size r^2 .26 No. children over 18 r^2 .37	Estate size r^2 .21 No. of financial dependents r^2 .23	Estate size r^2 .29	Income r^2 .23 Estate size r^2 .33

r^2 Pearson Product Moment Correlation Coefficient

TABLE 4. Variables Significantly Correlated With Estate Planning Action of Married Men and Married Women With and Without Minor Children ($p \leq .01$).

	ACTIONS				
	Testacy	Reviewing Life Insurance	Consulting Accountant	Consulting Attorney	Total Action
Married Men with Minor Children	------	------	------	------	Income r=.39 Extension part. r=.36
Married Women with Minor Children	Age r=.44	------	------	------	------
Married Men with no Minor Children	Age r=.33 Estate size r=.31	------	Estate size r=.38	Income r=.29 Estate size r=.33	Estate size r=.37
Married Women with no Minor Children	Age r=.35	Estate size r=.31	Estate size r=.27	Estate size r=.32	Estate size r=.42

r = Pearson Product Moment Correlation Coefficient ;

TABLE 5. Significant Relationships between Total Estate Planning Knowledge and Total Estate Planning Action of Married Men and Women ($p \leq .01$).

Married Men	Married Women	Married Men with Minor Children	Married Women with Minor Children	Married Men with no Minor Children	Married Women with no Minor Children
r=.29	r=.21	r= .36	-------	r=.26	------

r= Pearson Moment Correlation Coefficient;

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knowledge scores.

Estate Planning Action

Married Men and Married Women. The total estate planning action of both married men and married women was significantly correlated ($p \leq .01$) with income and estate size. The total estate planning action of married men was also correlated with extension estate planning workshop participation. Having a valid will (testacy) was correlated with age, estate size, and the number of children over 18 for both married men and married women. Consulting an accountant about estate planning was correlated with estate size for both married men and married women; for married women it was also correlated with the number of financial dependents. Consulting an attorney about estate planning was correlated with estate size for both married men and married women; it was also correlated with income for married men (Table 3).

Married Men and Married Women with Minor Children. To total estate planning action of married men with minor children was correlated with income and extension estate planning workshop participation. However, each individual estate planning action of married men with minor children was not correlated with any of the variables tested. For married women with minor children, having a will (testacy) was correlated with age (Table 4).

Married Men and Married Women with No Minor Children. For both married men and married women with no minor children, total estate planning action was correlated with estate size. Having a will (testacy) was related to age for both men and women and for men only was related to estate size. For both men and women, consulting an attorney was related to estate size and for men only was related to income. Consulting an accountant was related to estate size. For women only, consulting a life insurance expert was related to estate size (Table 5).

Relationship Between Estate Planning Knowledge and Action

The total estate planning knowledge score was correlated with total actions of married men and married women. However, within the subsamples, married men and women with minor children and married men and women without minor children, total knowledge and total action were correlated for the men only (Table 5).

Discussion

These data support the conclusion that attendance at extension estate planning workshops was related to higher estate planning knowledge scores. Of the three factors statistically related to total estate knowledge (income, estate size, and extension workshop participation), the strongest correlations were between knowledge and workshop participation in two subsamples: married men with minor children and married women with no minor children. Workshop participants in these two subsamples had the highest mean total knowledge scores while the nonparticipants in these two subsamples had the lowest mean total knowledge scores. Logistical problems in data collection have resulted in some limitations on the interpretation of these findings. Unfortunately, the lack of pretest data restricted the use of more sophisticated analytical procedures (i.e. ANCOVA, repeated measures ANOVA) and consequently inhibited a more detailed explanation of the differences between participants and nonparticipants. Therefore, we cannot conclude that the higher estate planning knowledge was due solely to the workshop; participants may come to the workshop with greater knowledge than the nonparticipants. However, we can conclude, based on a combination of knowledge and willingness to attend a workshop, two subsamples, married men with minor children and married women with no minor children, were highly receptive to estate planning education. Future educational programs ought to be designed for and directed to each of these subsamples.

The extension estate planning workshops have more effect on estate planning knowledge than on estate planning actions. Of the factors statistically related to total estate planning action, the weakest correlation was between total action and workshop participation. Workshop participation was not significantly related to any of the individual estate planning actions; having a will was statistically correlated with age, consulting an accountant was statistically correlated with estate size and consulting an attorney was statistically correlated with income and/or estate size.

There are several possible explanations for this apparent inaction: participants made knowledge based decisions that certain estate planning actions were not needed at the present time; there was not enough time between the workshop and the survey to complete actions; estate planning professionals gave more encouragement to individuals with income and/or sizeable estates than to individuals with lower incomes and smaller estates; factors in addition to knowledge influenced whether or not a person took action; and people were unable to find what they felt was competant professional assistance. Additional research is needed to determine why people do or do not plan their estates.

Increasing estate planning knowledge is one workshop goal. An additional goal is that people will take appropriate estate planning action. Increased attention needs to be directed toward follow-up activities after the workshop. One possible method is a series of publications mailed to workshop participants at regular intervals after workshops. These publications should include worksheets to help couples analyze their situation and help people select and work with estate planning professionals.

This study did not look at the interaction between spouses and its relationship to estate planning. There was a statistical correlation between the total estate planning knowledge and total estate planning action for all of the married men and all of the married women. However, in the subsamples, this statistical correlation was present only for married men with minor children and married men with no minor children. It may be that the estate planning is actually done by the husband. Further analysis is needed to determine if more estate planning action takes place when both husband and wife have high knowledge levels, if more planning takes place when husband and wife attend workshops together, if one spouse has more influence than the other in estate planning, and if spousal interaction is different in families with minor children than it is in families without minor children.

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A REVIEW OF "FACTORS RELATED TO ESTATE PLANNING KNOWLEDGE AND ESTATE PLANNING ACTIONS OF MARRIED INDIVIDUALS"

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Abstract

Morrow's paper was reviewed from the aspect of how it meets the criteria of evaluation research. Nine aspects of evaluation research were addressed. The need to include evaluation research as a part of program planning was stressed.

This paper is an example of determining impact of Extension programs on people's knowledge and actions. Using a control group it provides a comparison between participants and nonparticipants. Evaluation research to study program impact is not highly defined nor refined. Some of the questions that persist in evaluation research also persist in other social and behavioral science research. The questions that must be mediated in the design and the interpretation of evaluation research will be presented and discussed in terms of the Morrow paper.

Appropriate Research Design

What research design is most appropriate--pre and post test design, matched group comparison, time series, etc.? The author recognizes that other alternatives than those used could be considered. Using the approach in the paper, at minimum the nonparticipant group should be matched to the participant group on variables other than gender of the respondent and the presence of minor children. With estate planning being the major topic, presence/absence of a will and size of estate would be variables for matching groups.

Time Span

What is an optimal time span between program exposure and impact measurement? Eight to 16 months after program participation was used by Professor Morrow. This is appropriate as if too much time passes, participants may not identify with the program or recall when in time they took specific actions. Yet we must remember that shorter time spans reduce 'action' results.

We can only measure true success if we know the time frames in which people plan and implement actions. With the demands of everyday living and working, family schedules to coordinate, decisions to debate about estate planning and information to gather, planning and action occurs over a longer term than 'change makers' would like. Some of my own research indicates that with less emotive topics, mainly energy conservation, persons who plan are more apt to take action but in reality even after two years most planners are still planning and have not accomplished the action.

Measurement Variables

What measures reflect program impact--attitude, knowledge, behavior change, money spent or saved, satisfaction gained, etc.? What could be measured to indicate quality of and success of our programs? In simple terms it may well be any of the goals that participants bring to workshops. Was the specific goal(s) of each participant achieved?

In this case knowledge level (not gain) and actions taken were measured. Usually it is sounder to measure knowledge gain. It does take more resources. It is suitable to measure actions if we recognize that all respondents do not have the potential to carry out all actions either because they have already done some of them or their circumstances do not warrant the action (at least not in the time span studied).

Individual or Household Representation

Does the response of an individual represent the individual or the household? Does this representation vary with different topics? Both spouses were asked to be respondents in this study. This is a plus. Ideally the validity of the study would be enhanced if the responses of spouses had been correlated. We will never know if they collaborated on their responses but we can determine if they are consistent. Often our questions need to be refined to clearly indicate if we want individual or household behavior reported.

Standards of Success

What standards can be used to gauge the level of success? If there is a 10 percent increase in respondents' knowledge or if 10 percent of the respondents take action do we have success? What are acceptable outcomes--what level of knowledge gain can we expect? What portion of participants can be expected to take action? to plan action?

We may need to think of the game of baseball. A good batter is successful only about three of ten times. Can we expect much better than that? Studies in the past indicate the patterns of action seen in Table I.

In the previous research, seldom did more than 10 percent make wills. Revision of existing wills or other property holdings was more likely to be made. Those without plans need the greater motivation while those who have taken action in the past may need only reminders.

In addition to realistic expectation levels it is important to remember that the action potential is not 100 percent. Why should I gain knowledge and remember it about an aspect of estate planning that does not relate to my situation especially in these times of information overload. If I have a will, a brief mental review of it may be adequate assurance that I do not need to take or plan action unless personal circumstances or the law changes. Personal situations may also dictate that current time demands and finances

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Table I: Success of Studies Showing Respondents Actions (1)

Study Description	Personal Action	Professional Contact	Made a Will	Revision
		(percent of respondents)		
Social Security Planning (OSU, 1964)	70 81*	11		
Financial Planning and Management (ISU, 1982)	37		10	
Estate Planning (MSU, 1980)	10-39		8 1 (trust) 2 (gift-giving)	13 (will) 13 (titles) 8 (insurance) 3 (trust) 7 (gift-giving)
Estate Planning (Purdue, 1983)	85*	11 (no will) 30 (will)		
Money Matters (U. of Mass., 1982)	46		32 (no will)	18 (will) 65 (savings) 31 (insurance)
Money Management (U. of Conn., 1977)	34			
Estate Planning (OSU, 1983)	>50*	>50 (insurance) <50 (lawyer)		

*Discussed with others

make dental work take precedent over legal work. The former inflicts physical pain, the latter only mild psychological discomfort.

Since it is difficult to screen people as to their level of readiness for or interest in the workshop content, often we are faced with a range of people from the inquisitive (What's this all about?) to the desperate (Grandfather is dying but refuses to make a will). Whether we can impact all persons to some certain level is difficult to know.

Six 'states of mind' stages of client status have been identified--awareness, knowledge, liking, preference, conviction, and commitment (2).

> Awareness--the message and source is recognized--'estate planning is important for _____.'
>
> Knowledge--what is it, and what in my situation relates to it--'estate planning requires that I know certain generic and certain personal information.'
>
> Positive feeling--a favorable feeling toward estate planning--'I feel it is important that I do plan.'
>
> Preference--preference to use Cooperative Extension as a source of estate planning information--'those workshops will better prepare me than will _____.'
>
> Conviction--personal plan and/or promise to take some action--'I will go to the workshop.'
>
> Commitment--knowledge and information will be used to carry out certain behaviors or actions--'I have revised my will.'

Though individuals can progress through these stages in a short time span, many do not. A portion of our audience may not be at the stage where we chose to begin. In reality, we may be expecting people to skip stages in order to accomplish our ends.

We may need to rethink our approach to allow for progression through each state of mind recognizing that individuals have their own pace. We may have not developed preference let alone commitment to act.

Variable Relationships

What variables are most meaningful to identify relationships, cause and effect outcomes and predictions? Are variables most often used selected because of tradition or purpose? What purposes of evaluating or planning will each serve? What control of variables is needed?

It is fairly standard practice to study knowledge and behavior in relation to age, income, residence, etc. Two questions should always be asked to determine which variables to relate. First, what

variables are most suitable for control? Second, how can the findings be used? For example if age is found to be significant can we target workshops or materials by age--'an estate planning workshop for 40-55 year olds?' or is the knowledge that we gain of little application?

Nonparticipants and Nonrespondents

What research should be done to explore the characteristics of nonrespondents and nonparticipants? What can we learn from these? For the nonparticipants who responded, we may gain insight into why they are nonparticipants (if we want to reach them in the future). Nonrespondents of either group present the perennial question--are they like or unlike the respondents? We need to find out.

Practical and Statistical Significance

Why is it important that we distinguish practical and statistical significance in findings? Though we find statistical significance, it is important to look at the actual differences in knowledge scores or actions taken. As sample sizes increase, small differences can result in statistical significance. Is the fact that one group (on the average) got one-half of one question more correct than the other group of practical significance? It depends on the topic and how the results will be used. In interpretation, we need to be alert to placing greater importance on statistical significance than is warranted.

Trade-Offs

In seeking the ideal design, what trade-offs can be made to meet the realities of resources and our programs? Which trade-offs substantially weaken the usefulness of the research? Resources force us to balance the ideal and the real. Though statistical analysis can overcome limitations of research design and data collection, sound planning can improve evaluation research and its interpretation. Design is further complicated by varied applications of evaluation research. When evaluation research is to be used to carry out further program objectives or redesign later programs the research design is more complex than if the intent is strictly assessment of individual or household characteristics.

Program planning needs to include the plan and purposes for evaluation research. It can be modified over time more easily than it can be added on some time in the future. The questions posed and addressed in this paper are essential considerations in developing and defending sound evaluation research. We must remind ourselves that perfection can be sought but it is not likely to be achieved. If we maintain our perspective, we will see research as a learning process not as a final product. The quote of Professor Stocker gives us a message worth remembering.

> Research teaches a man (woman) to admit he (she) is wrong and to be proud of the fact that he (she) does so, rather than try with all his (her) energy to defend an unsound plan because he (she) is afraid that admission of error is a confession of weakness when rather it is a sign of strength (3, p. 226).

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DEFINING AND MEASURING A CONSUMER CONSERVATION ETHIC

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Abstract

A future based on energy conservation will require that consumers engage in activities that are ecologically responsible, make investments in energy saving features, and support public policies that encourage energy conservation. This study identifies the components that contribute to a Consumer Energy Conservation Ethic and provides estimates of the contribution of each component to a Consumer Energy Conservation Ethic Score.[3]

Problems and questions related to energy use and energy conservation are prime concerns of researchers and practioners who are attempting to establish and implement a long range energy policy. However, it is reported that consumers have become doubtful that an energy crisis exists and that they are reverting to an energy-intensive lifestyle, rather than subscribing to an energy conservation ethic (3,8,16).

The purpose of this study was to identify and measure attitudes and behaviors that are characteristic of consumers who subscribe to an energy conservation ethic. Specifically, the objectives of the study were to:

1. define the components of a Consumer Energy Conservation Ethic based on a review of the literature;
2. use questions from W-159, "Consequences of Energy Conservation Policies for Western Region Households," to develop a series of scales which would be used to assess the components of the energy conservation ethic;
3. develop the initial scoring system for each component;
4. combine component scores to arive at a Consumer Energy Conservation Ethic Score (CECES);
5. determine the proportion of variance in the total score explained by each component score; and
6. make recommendations for further analysis and application.

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[3]Research completed as part of "Consequences of Energy Conservation Policies for Western Region Households." Financial resources for the project were provided, in part, by USDA Regional Research Project W-159.

Definitions and Conceptualization

An ethic is a principle of right or good conduct or a body of such principles. Principles are basic, essential elements or qualities which determine characteristic behavior (11). Therefore, for purposes of this research, Consumer Energy Conservation Ethic is operationally defined as those factors (attitudes and behaviors) held and engaged in by individuals and families which utimately serve to reduce the overall societal consumption of energy.

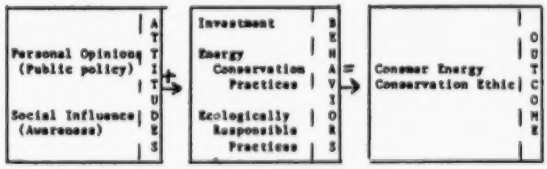
In reported energy conservation research five factors have been repeatedly linked with an energy conservation ethic (3,6,7,8,9,12,13,15,17). These factors included attitudes and sets of behavior related to 1) energy policy, 2) direct reductions in use of energy, 3) installation and/or use of energy conservation devices and/or techniques, and 4) practices which may indirectly effect a decrease in total energy consumption. The five identified factors are:

1. attitudes toward public policies for energy conservation;
2. awareness of societal participation in energy conservation;
3. investment in energy saving devices;
4. practice of energy conservation techniques;
5. engaging in ecologically responsible behavior.

The underlying theoretical model used as the basis for the conceptualization of the Consumer Energy Conservation Ethic is Ajzen and Fishbein's Theory of Reasoned Action (2). In this theory personal and social aspects of attitude are combined to predict intentions and ultimately behavior. The researchers emphasize that differentiation must be made between predicted behavior and expected outcomes. Indeed, outcomes are determined by behavior.

In this research it is posited that the Consumer Energy Conservation Ethic is an expected outcome and is determined by the attitudes and behaviors held and engaged in by individuals and families (Figure 1).

Figure 1. Conceptual Model of the Consumer Energy Conservation Ethic



Review of The Literature

Twelve years ago consumers were shocked by the simultaneous occurance of the 1973 oil embargo and a quadrupling of prices for oil and electricity (5). The abrupt price increase directed attention to the supply and price of a commodity that had been perceived as being abundantly available and cheap. Indeed, American lifestyle had been developed on the premise that it was cheaper to use additional new resources and dump wastes, side products, and discards than it was to recycle, reuse, or even conserve. Industry, transportation, construction, and household sectors developed energy use patterns based on a policy that rewarded high energy use with lower prices (3,7).

Researchers were concerned about rapidly increasing demand and diminishing supply of energy resources. Their projections indicated that we would soon run out of energy if the future demand continued to escalate at rates projected by previous increases in demand. Many analysts concluded that energy conservation was the most cost effective means of maintaining an adequate supply of energy (3,6,7,17).

Because of the sudden onset of both the embargo and the price increase, curtailment actions regarding use and distribution of energy products were quickly imposed. Consumers were quick to associate those measures with conservation and to assume that sacrifice and discomfort were the necessary result of adopting a lifestyle based on energy conservation (5).

Those charged with developing programs designed to reduce energy consumption believed that the key to establishing a conservation ethic, and thereby achieving reductions in energy consumption, was to convince consumers that conservation is not coincident with a lower quality of life. The goal was to teach consumers that conservation involves making the decision to substitute ingenuity for energy-intensive living; it involves making choices that require smaller energy requirements for a given amenity level. The need was to convince consumers that energy conservation is not an end in itself, but is instead a means of achieving the goal of improving the economic well- being and the quality of life for individuals and families (3,5,7,13,17).

Energy education programs aimed at enhancing consumer's attitudes toward conservation were based on the assumption that consumers who believe that conservng energy is a positive action will act on that belief, adapt their attitudes, change their behavior patterns, and engage in conservation oriented practices. The educational efforts were successful in that consumer attitudes toward energy conservation became more positive. However, consumer behaviors have not exhibited the same degree of change (3,4,9,15). This observation is supported by attitude/behavior theory which indicates that it is inappropriated to use beliefs to directly predict intentions or behavior (2).

Although belief in the efficacy of using energy conservation measures is a necessary precursor to using such measures, it is not a sufficient condition. In a study of 118 Australian families, only those families confronted with evidence of a discrepancy between their stated belief and their actual behavior acted to reduce their household energy consumption (8).

Other studies have examined factors associated with ecologically responsible behavior, including energy conservation. Craig[4] reports that there is abundant evidence that such predispositions as level of education, income, age, attitudes, values, and knowledge are related to energy conservation behavior. Just what those relationships are is not always clear because findings vary from study to study. However, there is evidence that in order for consumers to be able to actively engage in energy conservation behavior, the consumer must have some discretionary capacity. In other words, consumers must have some ability to control the amount of energy used and when the energy is used. In situations where energy use is highly discretionary, attitudes are important predictors of amounts of energy used. Where discretion is limited, or when there is lack of conscious decision making regarding energy use, attitudes have little impact (3).

By 1981 perceptions of the crisis nature of the energy situation had changed (12,15). Consumers had begun to adjust to and accept higher prices for energy. Many had made energy conservation investments by caulking, weatherstripping, insulating, adding storm windows, or replacing their gas guzzler with a more fuel efficient car. Many had turned to low or no-cost ecologically oriented behaviors to reduce the use of energy. They turned down thermostats, shut off rooms, made fewer trips, walked, biked, carpooled, or recycled reusable resources (4,6,10,13). Many people believed that government had mismanaged the energy stiuation; nevertheless, they expressed a desire for government to be involved in developing a workable energy policy. Furthermore, many agreed that energy consumption habits were at the root of the energy problem and recognized that two groups had emerged: conservers and users (6,17).

In the literature five factors were identified repeatedly as being linked with an energy conservation ethic:

1. attitudes toward public policies for energy conservation;
2. awareness of societal participation in energy conservation behaviors;
3. investment in energy saving measures;
4. practice of energy conservation techniques; and
5. engaging in ecologically responsible behavior.

The problem was to develop a set of measurement scales to evaluate each component and to determine the contribution of each component to an overall Consumer Energy Conservation Ethic Score (CECES).

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[4]Includes an extensive listing of references.

The Sample

The data used in this study were taken from the Nevada portion of the second wave of W-159, "Consequences of Energy Conservation Policies for Western Region Households". The sampling design for the initial wave (1981 data collection) had provided for proportional representation of rural and urban households. The stratified random sample of 1481 Nevada households surveyed for the second wave included in a longtitudinal sample of 731 households that had participated in the original study. Data were collected in February, 1983 using Dillman's Total Design Method. There were 995 respondents to the mail questionnaire which was a response rate of 67 percent.

Sixty-two percent of the respondents were male and 38 percent were female. Fifty percent had a total family income (before taxes) of more than $25,000. Sixty-two percent had some education beyond high school. Children under 18 years of age were present in only 28 percent of the households. The majority (58 percent) of households consisted of married couples with no children present (33 percent), or related or unrelated adults living together (25 percent). The average age of the respondents was 48.2 years of age which contributed to the relatively high proportion of respondents indicating that they were retired (22 percent). Eighty percent reported owning the house or condominium in which they lived. The majority of respondents (68 percent) had moved into their present home since 1975, and 35.5 percent reported that their homes had been built since 1975. Although the evidence linking demographic characteristics with energy conservation behavior is inconsistent, the distinctive demographic profile of the sample[5] should be kept in mind when interpreting the findings of this study.

[5]The sample could be considered to be distinctive because it was predominantly male, middleaged, higher income, well educated, living in their own home in an adults-only household. Although elements of this demographic profile are distinctive, overall it is similar to those same demographic characteristics of the population of Nevada (14). The differences are that the average of the sample is older, a slightly greater proportion of the sample is male, and there are slightly fewer couples with children present than in the general population of Nevada. These discrepancies could be due to the topic addressed by the survey. Energy use, energy policy, and energy investments could be of greater interest to males than females and to older, rather than younger, members of society. Another reason for the differences could be that the sample was drawn from telephone directories. This could affect the age of the sample since in Nevada younger persons are more likely to be highly mobile therefore more likely to be excluded from telephone directories

The Measurement Model

A stipulation of the Theory of Reasoned Action is that each component of the model be given a weight reflecting its relative importance as a determinant of the outcome under consideration. Relative weights are then summed to predict outcomes (2).

In developing the instrument to assess the CECE, scores for each component were assigned on the basis of the researchers' assessment of the relative importance of each component. Since summations were used to arrive at the CECES, non responses as well as neutral responses were scored as zeros. Summative scores are not affected in either a positive or a negative direction by recorded scores of zero. Furthermore, in this study it was assumed that a non-response was indicative that the respondent either had no opinion or had not engaged in a particular behavior. This assumption is supported by the Theory of Reasoned Action in that stated intentions are believed to be necessary precusors to behavior. When a subject failed to respond it was assumed that a zero was an appropriate indicator of a lack of opinion or behavior. If this exploratory investigation provided initial confirmation of the validity of the construct, more sophisticated approaches to scoring and data analysis could be attempted in a further study.

Item Identification and Scoring

Responses to five questions included in the Nevada Questionnaire, "ENERGY DIRECTIONS: A 1983 Western Perspective" were identified as being reflective of the components to be included in assessing a Consumer Energy Conservation Ethic. The first component of the total score was a Public Policy Score. This score was obtained from an evaluation of eight items (Table 1). Respondents were asked to indicate their opinion of each described energy policy on a five point Likert scale. Assigned scores were:

Strongly oppose	-2
Oppose	-1
Neutral(or no response)	0
Favor	+1
Strongly favor	+2

Scores ranged from -16 to +16. The mean Public Policy Score was +3.84, the median was +4.09 and the mode was +4. Respondents were more in favor of than opposed to possible policies that would encourage energy conservation (Table 2).

The 1983 questionnaire included two pages of questions which were unique to each state (1). One question (12B) from the Nevada pages was used to assess awareness of societal participation in conservation behaviors (Awareness Score). Respondents were asked to compare their conservation behavior to that of the general public on a scale of one to five.

Table 1. Public Policies Rank Ordered by Net Points

Policy	Strongly Oppose (n)	Oppose (n)	Favor (n)	Strongly Favor (n)	Net Points
Give tax credits for improving home energy efficiency.	20	52	463	287	945
Provide tax credit for adding home solar heating or cooling.	20	60	413	299	913
Change building codes & mortgage requirements to encourage new types of energy-saving housing.	17	54	521	219	871
Require land developers to have energy plans as part of their developments.	14	65	493	217	834
Require utilities to provide regular reports to users on whether energy use is higher or lower than in previous years.	15	80	449	157	653
Require utility companies to charge lowest rates to low energy users & high rates to high users.	50	155	342	234	555
Require everyone's home to pass an energy audit.	151	295	225	73	-226
Discourage building homes away from towns & cities to lessen travel by car.	187	445	61	16	-726
(Assigned Score)	(-2)	(-1)	(+1)	(+2)	

Net points calculated by multiplying the number of responses by the assigned score for the response and totaling the four products for each policy.

Table 2. Frequency Distribution for Public Policy Component

Score	Absolute Frequency (n)	Relative Frequency (%)	Cumulative Frequency (%)
-16 to -6	38	2.8	2.8
-5 to -1	111	11.2	14.0
0	99	9.9	23.9
+1 to +3	191	19.2	43.1
+4(mode)	116	11.7	54.8
+5 to +8	309	31.0	85.8
+9 to +12	124	12.5	98.3
+13 to +16	17	1.7	100.0

Range = -16 to +16
Mean = 3.84
Median = 4.09
Mode = 4.00
Standard Deviation = 4.507

Assigned scores were:

No response	0
Practice conservation a lot less	1
Practice conservation somewhat less	2
Practice conservation the same as others	3
Practice conservation somewhat more	4
Practice conservation a lot more	5

The intent of this component is to measure awareness of relative behaviors (self compared with other members of society). Consequently credit was given for respondents' being aware of their own conservation practices in relation to the practices of others.

Awareness Scores ranged from zero (56 or 5.6 percent of respondents) to five (140 or 14.1 percent of respondents). The mean Awareness Score was 3.39, the median was 3.55, and the mode was 4.0, indicating that the majority of the respondents believed that they practiced conservation somewhat more than the general public (Table 3).

Table 3. Consumer Awarness of Conservation Behavior Component

Score	Absolute Frequency (n)	Relative Frequency (%)	Cumulative Frequency (%)
0 (no response)	56	5.6	5.6
1 (a lot less)	17	1.7	7.3
2 (somewhat less)	67	6.7	14.1
3 (same as)	338	34.0	48.0
4 (somewhat more)	377	37.9	85.9
5 (a lot more)	140	14.1	100.0

Range = 0 to 5
Mean = 3.39
Median = 3.55
Mode = 4.00

The third component was an investment score. Fourteen items were used to determine the Investment Score. Respondents were provided with a list of fourteen energy-saving features that could be added to a home and were asked to indicate whether the feature had already been added to their home, or they planned to add it within two years, or they had no plans to add the feature (Table 4). Assigned scores were:

Feature had been added	+1
Plan to add feature	0
No plans to add feature	-1

Table 4. Energy-Saving Features Rank Ordered by Number of Respondents Indicating Feature Existed or Had Been Added to Their Home.

Feature	Existed/ Added (n)	Don't have/ Don't Plan (n)
Weatherstripping &/or Caulking	649	112
Outside walls insulated	609	140
4+ inches of ceiling insulation	602	103
Double panes or storms on most windows	499	283
Insulated interior window coverings	348	402
Thick floor insulation	344	298
Wood-burning stove	296	363
Storm doors on all entrances	262	460
Evaporative cooler	249	489
Glass doors on fireplace	179	271
Outdoor window shades	162	584
Clock set-back thermostats	141	580
Solar hot water heater	15	631
Solar heating	10	638

No credit was given for a response which indicated plans to add a feature for two reasons: 1) those respondents in the longtitudinal sample had already had two years to initate and accomplish realistic plans to add energy-saving features to their homes, and 2) although plans are a reflection of attitudes, as such they are not an accurate precursor of behavior (2,15).

Investment Scores ranged from -14 to +14. Four respondents indicated that they had made no investments in energy-saving features. The mean score was -1.02 and the median was -0.248, indicating that there were more respondents that had not made investments in energy-saving features (456 or 45.8 percent of the respondents) than had made investments (374 or 37.6 percent) (Table 5).

Table 5. Frequency Distribution for Investment Component.

Score	Absolute Frequency (n)	Relative Frequency (%)	Cumulative Frequency (%)
-14 to -11	26	2.6	2.6
-10 to -6	158	15.9	18.5
-5 to -1	272	27.3	45.8
0	165	16.6	62.4
+1 to +3	220	22.1	84.5
+4 to +8	147	14.8	99.3
+9 to +11	7	.7	100.0

Range = 14 to +11
Mean = -1.02
median = 0.248
Mode = 0
Standard Deviation = 4.391

Significant differences have been found between consumer's perception of their energy conservation behavior and actual practices (3,8,13), therefore, two scales were used to assess actual behaviors. On the first scale respondents indicated which of six direct actions they had taken in a effort to cut back on their household energy consumption (Energy Conservation Score) (Table 6). Those items where the response indicated was, "This is done now", were scored +1. When the response was, "Don't do now," the assigned score was zero.

Scores ranged from zero to six. Sixty nine or 6.9 percent of the respondents indicated that they do not engage in any of the listed energy conservation practices. Conversely, 128 or 12.9 percent (nearly twice as many) use all of the listed energy conservation practices. The mean score was 3.59, the median was 3.78, and the mode was 4.0, indicating that the majority of the respondents engage in more than half of the listed practices (Table 7).

Table 6. Energy Conservation Behaviors Rank Ordered by Number of Respondents Practicing the Action.

Action	Now Do (n)	Don't Do/ Doesn't Apply (n)
Open & close window coverings to take Advantage of sun and temperature differences	798	197
Close off some rooms	729	266
Have hot water heater set at 120 F (or less).	662	333
In winter, set thermostat at 65 F or lower.	519	476
In summer, set thermostat at 78 F or higher.	486	509
Change use of rooms to take advantage of sun warmed or shaded areas.	382	613

Table 7. Frequency Distribution for Energy Conservation Behavior Component.

Score	Absolute Frequency (n)	Relative Frequency (%)	Cumulative Frequency (%)
0	69	6.9	6.9
1	48	4.8	11.8
2	135	12.6	24.3
3	191	19.3	43.5
4	233	23.4	66.9
5	201	20.2	87.1
6	128	12.9	100.0

Range = 0 to 6
Mean = 3.594
Median = 3.777
Mode = 4.0
Standard Deviation = 1.671

The final component assessed was whether or not respondents engaged in selected practices which represented ecologically responsible behavior. Ten practices were listed and respondents were asked to indicate the frequency with which they engaged in each practice (Table 8). Assigned scores were:

Always do it	+5
Sometimes do it	+3
Plan to do within next 2 years	+1
Don't do it and don't plan to	0

Table 8. Ecologically Responsible Behaviors Rank-Ordered Within Sub-components by Weighted Score.

Behavior	Plan (n)	Sometimes (n)	Always (n)	Item Score P=(5x3)+(Ax5)
Traditional Evidence				
Recycle cans	34	305	251	2204
Dry laundry on clothesline	56	384	174	2078
Walk or ride a bicycle on errands	49	423	44	1538
Install plastic over windows in winter	130	119	165	1302
Participate in a car pool or ride the bus	32	177	66	893
	(116 practice none of the above)			
Indirect Evidence				
Keep records of home energy usage	78	159	291	2010
Make furniture or clothing for self or family	49	148	46	1533
Buy or trade used clothing	18	341	74	1411
Work at home as part of a salaried job	27	95	41	517
	(195 practice none of the above)			
Supportive Evidence				
Contribute to ecologically-oriented organizations	54	253	25	944
	(661 do not make contributions)			

For this component, planning was assigned a score of +1 primarily because this question had not been included on the initial (1981) questionnaire to which the longtitudinal sample had responded. Some of the listed practices might not have been regarded by respondents as conservation behaviors prior to answering the question. Consequently, "plans" to initiate any one or more of the behaviors is included as a positive element in assessment of ecologically responsible behaviors.

For purposes of this initial analysis, the ecologically responsible behaviors were divided into three groups:

1. those pracices identified in the literature as being evidence of ecologically responsible behavior (Traditional evidence);

2. those practices intuitively identified as being indirectly indicative of ecologically responsible behavior (Indirect Evidence);

3. a practice that is believed to be supportive of ecologically responsible behavior (Supportive Evidence).

The range of scores, mean scores, median scores, and standard deviations for each sub-component of the Ecologically Responsible Behavior Score are presented in Table 9.

Table 9. Frequency Distribution for Related Behavior Sub-components.

Component	Score	Absolute Frequency (n)	Relative Frequency (%)	Cumulative Frequency (%)
Traditional Evidence				
	0	116	11.7	11.7
	1	17	1.7	13.4
	2 to 8	402	40.4	53.8
	9 to 13	307	30.8	84.6
	14 to 18	124	12.5	97.1
	19 to 25	29	2.9	100.0
Range = 1 to 25				
Mean = 8.055				
Median = 8.048				
Mode = 0				
Standard Deviation = 5.198				
Indirect Evidence				
	0	195	19.6	19.6
	1 to 5	320	32.2	51.8
	6 to 10	334	33.5	85.3
	11 to 14	131	13.2	98.5
	15 to 20	15	1.5	100.0
Range = 0 to 20				
Mean = 5.498				
Median = 5.333				
Mode = 0				
Standard Deviation = 4.113				
Supportive Evidence				
	0	661	66.4	66.4
	1	54	5.4	71.9
	3	255	25.5	97.5
	5	25	2.5	100.0
Range = 0 to 5				
Mean = 0.949				
Median = 0.253				
Mode = 0				
Standard Deviation = 1.446				

Approximately 56 percent of the respondents indicated that they sometimes or aways practiced two behaviors in the Traditional Evidence component: they recycled cans and used a clothesline to dry clothes. Forty-seven perecent reported walking or riding a bicycle for errands. Putting plastic over windows and carpooling or riding the bus were practiced by less than 30 percent of the respondents.

The behaviors classified as Indirect Evidence were practiced less frequently than those in the Traditional Evidence component. Between 41 and 46 percent of the respondents indicated that they bought or traded used clothing, kept energy records, or made their own furniture or clothing. Only 14 percent were gainfully employed with their home as their place of business.

Twenty-eight percent of the respondents reported that they sometimes or always made contributions to ecologically oriented organizations, while 66 percent reported that they don't make such contributions, nor do they plan to do so.

When component scores were combined to produce the Consumer Energy Conservation Ethic Score (CECES), the range in scores was from -22 to +72 (the possible range was from -30 to +91). The mean score was 24.31, the median was 24.30, the mode was 24, and the standard deviation 13.13. Only 3.1 percent of the respondents accrued negative scores. In these cases attitudes opposing conservation related public policies and lack of investment in energy-saving features overrode any other

conservation behaviors practiced. Five percent of the sample had a CECES of zero or below. On the positive side of the range, five percent of the sample had scores of 45 or higher.

Statistical Analysis

Although all component scores were used to arrive at the CECS, not all components contributed equally to the variance in the total score. In order to assess the contribution of each component SPSS was used to compute a stepwise multiple regression with CECES as the dependent variable and Public Policy Scores, Traditional Evidence Scores, Indirect Evidence Scores, and Supportive Evidence Scores as independent variables. When a regression equation is used to compare a total or composite score with its components, the combined variance in the component scores accounts for the total variance in the total score. When a stepwise regression model is used for the analysis, component scores are entered into the equation in order of the proportion of the variance explained by the component.

The Traditional Evidence Score was the first component to enter the regression equation and accounts for 49.4 percent of the variance in CECES. The Investment score accounts for an additional 19.2 percent of the explained variance, and the Public Policy Score represents 16.2 percent of the explained variance in CECES. The remaining component scores (Indirect Evidence, Conservation Behavior, Supportive Evidence, and Awareness) contributed only 14.8 percent of the explained variation in CECES.

When part scores are compared with total scores, the contribution of the part score to the total score should be controlled in order to gain a more accurate estimate of the contribution of the part score to the total score. Part-whole correlation is one statistic used to accomplish this task. It is particularly appropriate when the components are not equal in length and when items are not weighted equally. Those computed correlation coefficients (r pq) are presented with the Pearson product-moment correlation coefficients in Table 10.

Table 10. Relationships Between Component Scores and CECES.

Component	Pearson Product-Moment Correlation Coefficient (r)	Part-Whole Correlation Coefficient (r pq)
Traditional Evidence	.703	.349
Indirect Evidence	.670	.350
Public Policy	.542	.413
Awareness	.512	.486
Investment	.499	.369
Conservation Behaviors	.467	.412
Supportive Evidence	.413	.382

In each analysis Traditional Evidence emerges as a prime indicator of the CECES. These separate analyses also contribute support to the premise that a combination of factors must be assessed in order to arrive at an accurate estimate of a Consumer Energy Conservation Ethic.

When SPSS was used for a reliability analysis of the CECES an Alpha coefficient of .74 was obtained. Although this is an acceptable level of reliability, this finding combined with the results of the regression analysis is an indication that some adjustments could be made in the selection of components to be included in the measurement instrument.

Conclusions

A combination of attitudes and behaviors were examined in order to identify the components that account for the greatest variance in the assessment of a Consumer Energy Conservation Ethic Score. The Traditional Evidence Score explained the greatest percent of variation in the total score. This score represented the degree to which respondents participate in practices that reflect ecologically concerned behavior. Merely practicing behaviors solely intended to decrease energy consumption in households does not indicate that a person has a conservation ethic. Adding energy saving features to a home is another important component of the CECES as is having a positive attitude toward public policies which encourage energy conservation. Of lesser importance are such things as making contributions to environmentally-oriented organizations and beliefs about how you compare to other people in the practice of energy conservation. It is a combination of general conservation practices, investment in energy saving features in the home, and attitudes toward public policy that make up a Consumer Energy Conservation Ethic. This combination of actions, investments, and attitudes are evidence of a need for energy education programs that are based on an integrated approach designed to involve participants in a variety of alternative actions.

These results have implications for professionals involved in the development and implementation of energy education projects. If energy management professionals and researchers are correct, our energy future depends on understanding, accepting, and practicing an energy conservation ethic. Positive action must be taken by policy makers, program planners, and citizens to operationalize attitudes and behaviors that contribute in a major way to the enhancement of a consumer Energy Conservation Ethic.

Recommendtions

The results of this exploratory study provide initial confirmation of the validity of the CECE construct. it is recommended that further analyses be conducted to provide additional evidence and add strength to the validity of the measurement instrument. Part-whole correlation coefficients should be tested for significant differences in the contributions of component scores to CECES using the t-test for correlated samples. This could provide evidence for making the decision to

eliminate one or more components from the measurement instrument. Alternate scoring systems could be tested and Confirmatory Factor Analysis could be used to estimate the weights that each component should carry.

The construct validity of the instrument should be further tested by developing and testing hypotheses with CECES as the dependent variable. Earlier studies have shown inconsistent results when demographics have been used to predict the practice of conservation behaviors (3). Perhaps CECES (a combination of behaviors, attitudes, and investments) would provide more reliable estimates of relationships with demographic variables.

Administrtors, leaders of professional organizations, and curriculum developers in Home Economics can use the results of these analyses in making an assessment of the contribution of Home Economics programs to maintaining our quality of life without increasing energy consumption, and without increasing the already heavy burden of the cost of energy to consumers. There is no "quick-fix" to the energy problem. Initiation and practice of a Consumer Energy Conservation Ethic will help buy us the needed time to invent and implement additional sources of energy into our distribution network. Continued practice of a Conservation Ethic will provide a means of achieving the goal of improving the economic well-being of individuals and families.

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EMPIRICALLY ENTWINING ENERGETICS, ENVIRONMENTALISM, ECOLOGY, AND ETHICS: THOUGHTS ON DEFINING AND MEASURING A CONSUMER CONSERVATION ETHIC

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I hope the title for these comments sufficiently highlights the complex set of conceptual domains germane to the study reported on by Haldeman and Tripple. The ambition and implicit scope of this study is suggested by the overall emphasis on a "Consumer Energy Conservation Ethic" (CECE), "ecologically responsible behavior" (ERB), and the use of a "theory of reasoned action" (ToRA) as the underlying theoretical model. Clearly, such comprehensive and interdisciplinary projects should be encouraged and supported. However, projects of this scope come with incredible liabilities due to the large literature bodies of theory and research they encompass. They also promise benefits that cannot be realized by less comprehensive studies. I hope to highlight a number of the liabilities, difficulties, and benefits of this type of research in my comments.

A major strength of the authors' conceptualization of a CECE is its composite nature. The construct validity of a composite index is usually enhanced considerably when it is constructed by summing over several separate scales that measure attitudes and behaviors pertaining to different areas of relevant content with somewhat different forms of measurement (17,30). Another strength of the authors' design is to use several general attitudes (as measured by multiple-items) to predict corresponding general sets of behaviors. According to the ToRA, the resulting multiple-act criteria are predicted better by equally general attitudes than by attitudes toward specific behaviors (1). In addition to measuring general sets of behaviors and corresponding attitudes, prediction and explanation of multiple-act criteria also requires measuring corresponding intentions to perform the behaviors and corresponding subjective norms which are the person's perceptions of social pressures to perform the behaviors (1).

The construct validity of the CECE requires a comprehensive conceptualization and operationalization of behaviors, attitudes, intentions, and subjective norms related to conservation ethics, energy conservation, and ecological responsibility. Since very few studies have been conducted that explicitly link attitude theory with measures of environmental and ecological attitudes and behaviors (2,13,26), this study has great potential--if it can recoup what I think it currently lacks due to two major shortcomings. The first is the omission of several bodies of literature in the conceptualization and operationalization of the CECE. The second is the absence of the measures necessary to use the ToRA as the theoretical model.

There are several large bodies of literature that are concerned specifically with ethics and its applications to issues of energy conservation, environmentalism, and ecology. Since they are not reflected in most empirical studies, most studies in these areas continue as if there were virtual agreement on what the critical issues are and how they should be studied. In the literature, it is clear that what constitutes energy conserving and ecologically responsible behaviors are subjects of considerable debate. They are moral issues in the strictist sense because of the strong opposing opinions that exist about what is good, right, and morally obligatory for conserving energy and being ecologically responsible (19,22,29). These are concerns of normative ethics that are best studied in their metaethical contexts (20,22). Metaethics is concerned with questions such as the following: On what grounds are facts and values determined? What are the facts and values considered to be relevant for determining what is good, right, and obligatory concerning humankind's moral relationship with the biosphere? What criteria are used for determining which behaviors are judged to be energy conserving and ecologically responsible? What are the contexts and time frames in which facts and values are applicable? For present generations? For future generations? For North America? For third world countries?

To connect these concerns with the ToRA, one might ask, "What are people's perceptions about which facts and values are relevant and what are the attitudes, behaviors, and outcomes perceived to be connected with them? Consideration of these questions and the variety of answers given to them suggest considerable differences in world views, ethics, attitudes, intentions, behaviors, and perceptions about others (20,22,29). Clearly, more research is needed to study issues of energy conservation, environmentalism, and ecology in view of different world views, ethics, values, attitudes, and behaviors. We do not need more research that ignores them. Van Liere and Dunlap (26) concluded that more conceptual research is critical to defining the boundaries of such constructs as well as determining if the constructs are embedded in or independent of a broader ecological world view.

The question about an emerging and encompassing world view based on the science of ecology has become a very controversial subject in the last two decades. In his historical discussion of the concepts and theories of ecology, McIntosh voices concern over the ways the term "ecology" has been appropriated to fit a popularized and hip form of environmental awareness that lacks understanding or acknowledgement of the "aesthetic, ethical, moral, and even metaphysical insights for the human dilemma

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(15, p. 319)" that is central to ecology. The term is severed from its underlying assumptions about and implications for humankind as only a part of the living community of organisms, ecosystems, and the environment. The implications of ecology's scientific insights are of little interest to popular pro-environmentalists who fail to see such insights as the basis for a fundamentally different world view with its own perspectives on facts, values, and ethics.

McCloskey (14) argues there are three basically different views of the relationship between ethics and ecology. One view is that ecology and the awareness of nature, its constituents, and the interdependence it brings, require the development of a fundamentally new ethic, a non-human-centered, nature-centered morality. Its base is an egalitarian, anti-anthropocentric biocentrism that differentiates ecology from environmentalism. There are several groups that more or less share this view. Probably the strongest of these is deep ecology (8,16,22). It is largely inspired by Aldo Leopold's classics, 'The Conservation Ethic' (11) and 'The Land Ethic' (12). Others are: Eco-feminism argues domination of nature by man is rooted in his domination of women (10,23); Black ecology claims that ecological values look different when they are grounded in ghettos and impoverished-living conditions (6,9); Eco-anarchism (4,5); and Western European Greens who make ecology the center of their politics (7,21). A second view is that the findings of ecology make it necessary to develop a new but less radical ethic that is ecologically oriented, ecologically aware, and espouses a normative ethic that fully acknowledges environment values and environmental duties (3, 18,19). Literature from these views requiring new ethics provides a variety of relevant items for testing, validating, and analyzing connections between an ecologically-based world view, its facts, values, and ethics (3,16,21,22).

The third view is that the findings of ecology do not require a new ethic but simply a more informed and accurate perspective for thinking about our moral obligations and moral rights in terms of the relationship between humankind and the environment. This is the perspective of most environmentalists and it includes most of the traditional views of the environment and ethics (24,27), specifically in the area of energy conservation (29). In this study, the factors identified with the CECE are quite compatible with this third view. It is certainly a legitimate position to conduct a study from if the study takes into consideration the issues that differentiate between views of ecology and ethics. For future study, there are established measures of environmental concern and ecological awareness (26) that could be used to strengthen and validate the CECE. The main point to be made in this discussion is that there are major differences in how one conceptualizes what are perceived to be issues of environmental and ecological concern that subsequently determine what are taken as relevant facts, values, attitudes, and behaviors utilized in studying, in this case, a consumer energy conservation ethic.

The second shortcoming of this study is the failure of the CECE operationalization to provide adequate measures of the basic components of the ToRA (1). While there are items that measure sets of behaviors, items measuring corresponding intentions, attitudes, and subjective norms are not included. Items included that do measure attitudes do not have corresponding items for measuring subjective norms, intentions, and behaviors. It would have been advantageous to have some other measures of energy use rather than having to rely solely on self-report. Because of the unrealibility of such measures, most argue that the only reliable and meaningful measure in energy conservation research is actual energy use (13). Studies that have tried to predict conservation behavior (as measured by self-reports of energy consumption) from attitudes about energy, intentions to conserve, and knowledge of energy issues have proven to be largely unsuccessful (2). In past research using the ToRA, energy conservation (25) and concern for the environment (28) have been studied. While this shortcoming may be limiting to this study in terms of the theoretical model originally identified, it does not prevent this study from providing useful information for exploratory purposes or in view of other ways of arranging and analyzing the data.

Since composites often hide the true relationships between the different subscales and for example, demographic variables (which effects internal validity) it is important to test and examine the intercorrelations of the different CECE components with each other and with selected demographic variables. If the components or subscales are all highly intercorrelated and are consistent across the different demographic variables then the composite is probably measuring one construct. A subscale that is not highly intercorrelated is usually discarded (17). Using item analysis (17), internally consistent scales can be constructed for the public policy items and for the subscales of sets of behaviors, eliminating the items that do not fall within the acceptable range for inclusion in the respective scales.

Internally consistent scales can also be constructed for the policy and behavior items using principal component factor analysis with a varimax rotation (Zeller & Carmines, 1980). This can be done several ways. One way is to factor analyze only the public policy items to see if the items have high loadings on only one factor (single factor solution). Do the same for the items for each set of behaviors, again to see if each set results in a single factor solution. Single factor solutions indicate only one construct is being measured. Another way is to combine all the items and work with the factors that are obtained after the varimax rotation until a single factor solution is obtained for each factor and its corresponding group of high-loading items. Once the subscales and CECE composite have been validated as much as possible, they can then be used in other analyses. For example, after deciding upon a strategy for differentiating between those with high and low CECE scores, the two groups could be compared in a variety of ways.

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RESPONSE TO DEFINING AND MEASURING A CONSUMER CONSERVATION ETHIC

Donna R. Iams, University of Arizona[1]

Establishing a measuring device for Consumer Energy Conservation Ethic is an undertaking which is demanding in view of the volumes of literature on energy conservation behavior and attitudes. Drs. Haldeman and Tripple should be praised for attempting such a task. Overall I believe tht they have been fairly successful in reaching their goal and have been aware of the need for further testing and modifications of their measuring device.

There are some questions about decisions and procedures made by the authors which need to be addressed. These include the justification for some questions used or not used in establishing the various components and why some other energy attitude and behavior literature was not cited.

First, the justification of some questions not used are of interest to those persons familiar with the W-159 study, "Consequences of Energy Conservation Policies for Western Households." The W-159 questionnaire contained some specific social and public policy questions which were directly related to ecological conservation issues. Such questions asked respondents about the use of more "solar," "wind," and "nuclear power." The public policy questions the authors did use measures indirect policy procedures and were certainly important to the model. However, since the authors were interested in ecological behavior why were the direct ecological policy questions ignored?

The establishment of the Awareness Score was based on one question. I will admit that I have a personal bias about basing findings on the use of a single question, however, since you were particularly interested in "societal participation" in conservation behaviors could not questions which asked the respondent to compare the energy efficiency of their homes with other homes in the neighborhood be used in this component score?

Under the Traditional Evidence component one measured response was "putting plastic over windows." Was there any adjustment made if the respondent's housing unit did not need such a feature? Another response was "dry laundry on clothesline." What if the respondent did not have facilities necessary for such behavior? This point then raises the question regarding energy-saving features. Were renters included in this study? From the authors' description of the sample they indicated that 20% of the respondents were renters. Would this have been a significant amount to alter any results when using question items in which renters could not have participated? Under the researchers' assessment a non-response indicated the respondent has not opinion or had not engaged in the particular behavior thus indicating that the respondent had free choice to participate or not participate or be apathetic regarding their behavior. I would suggest to the authors or anyone wishing to further test the CECE that they review the methods used by Fasses and Iams[1] or Carpenter and Chester[2] as a means of eliminating this problem.

Finally, under the Recommendations section of the paper, alternative scoring systems and weighting methods were suggested. There exists energy conservation literature which indicates peoples' attitudes and behavior are influenced by the perception of whether public policies are regulatory or voluntary, if energy production methods are ecologically sound or unsound, and if installation of energy saving features have low or high financial and comfort costs. Why did the authors not incorporate these items into their evaluation or scoring? Not addressing such previous findings is of concern when the authors do make conclusions such as "respondents were more in favor of than opposed to possible policies that would encourage conservation." Such a conclusion does not indicate the type of public policies favored and I would not like for policy makers to be making public policy based on such broad statement.

Again I compliment Drs. Haldeman and Tripple on their efforts. In a era when ethic measures frequently are challenged many researchers would not attempt such a task. I believe the use of the Theory of Reasoned Actions was appropriate and recommendations for further testing wise. The questions I raised are important for further testing of the CECE to insure that the interpretations are based on complete information.

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WOMEN'S WORLD BANKING AND CREDIT STRATEGIES IN DEVELOPING COUNTRIES

Discussion

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During the last five years, I have been working full time with Women's World Banking (WWB). The concept of gaining access to credit is new for many women, so half of my time is spent with people who say "I don't understand what you are talking about." Nevertheless, we have tried to encourage all women, from those who are small-scale entrepreneurs to those of large-scale inherited wealth, to take responsibility as it relates to financial institutions and money management. Most importantly, we encourage them to understand how finance and banking work in the world.

I cannot emphasize enough the importance of integrating women into the financial world. I truly believe that we are not going to have a non-nuclear of an environmentally safe future until women are directly involved in the investment decisions of resources in the local and international communities. In my own life, I have made a commitment to try to encourage institution building and confidence building in women in order to reach this goal of integration. Thus far, I have been amazingly surprised at the speed with which this institutional framework has taken hold. I do, however, have concerns about women's confidence in taking leadership responsibility. My reservations stem from a problem inherent in most peoples; it is easier to let somebody else define what responsibility is than to be held accountable to self definitions. A full integration of women into the financial world will only be possible when women overcome this stumbling block.

Encouraging women to take responsibility and allowing them a means of entering the formal economy through access to credit is a unique concept which was first articulated in 1975. In Mexico City, at the beginning of the Decade for Women, I heard a great deal of talk about credit--that credit is the key to women's success. People throughout the development world were saying women needed credit. From my experience, the last thing anyone needs is credit unless she knows how to use it. Credit is only a tool that gives you access to the modern economy. This is what we are really talking about. Most women in the world do not have <u>access</u> to the modern economy.

Even in wealthy areas, many women do not have access to the formal economy. For example, in some of the wealthiest counties in the country, seventy percent of divorced women are living at the poverty level. If you have ever been divorced, or if anyone close to you with small children has been divorced, you know that they are living at the poverty level physically, emotionally and psychologically. These women are under enormous stress. In some cases, their problems could have been avoided had the women understood their marriage contracts, finances and had they been more independent minded in their marriages. Even when women take responsibility and initiative in their marriages, they are often confronted with numerous financial hardships once they are divorced. Unless they had established their own credit rating, independent of that of their husband, for example, they will find it difficult to obtain a loan or even a credit card.

Turning to the third world, I believe that many of the financial problems in most developing countries could have been avoided if fifty-five percent of the population had been involved in the modern economy - their women. Although most women work in small enterprises, they are often excluded from many benefits of the modern economy such as access to market-rated credit, capital, information, technology, and markets. Since I believe that a small-scale business sector is the key to a successful and healthy economy, it seems to me that the pieces of the puzzle are those that will make small businesses economically effective in terms of both a national and international economy.

With the assistance of 5,000 women, we began to try to put some of those pieces together right there in Mexico City in 1975. Many people were not satisfied with our conclusions. They thought that small businesses were not effective, because people were still starving in developing countries. To see if this was a valid deduction, we decided to look at relationships. We began by getting together a group of twenty people from around the world. At first, it was difficult, because many people did not understand. Others were suspicious. They thought that because I was from Wall Street, I did not understand anything about local development. Now, however, I think most people understand that we are interested in showing how small enterprises can benefit many people in an economy.

After people began to understand what we were

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trying to convey, our next step was to agree on a structure which would provide local women and small businesses with access to the modern economy. As a result of three or four years of research, we decided that this structure would not be an international development bank for women that required large sources of capital, great legal expenses, and a large staff. Instead, we wanted to be certain that women would have a legal structure which would provide them with direct access to their local banks and would assure that they could become respectable members of the business community.

In formulating this structure to bring women into the modern economy, we also had to look at aid programs. While doing research, we realized that the business community and the aid programs in developing countries were often in two different worlds. Research, agricultural, and health programs were different from the business community. We had to keep in mind our original goal -- to get respectable representation and identity for women.

Our challenge ten years ago was to prove that small scale businesses could be profitable, irrelevant of size. We had to convince governments that they could support a project or movement that was different -- that could not be predefined. We wanted to create a project that served as a source of collateral for women locally. That would be their lynch pin. Government aid programs were beginning to acknowledge the fact that women generally had no collateral, often because they had no land. With this discovery, we were well on the way to meeting our initial challenge.

After solidifying our ideas and setting some goals, we successfully established a legal entity in Holland. WWB is a unique financial trust, registered under the central bank of Holland, working to promote banking services for people who, for one reason or another, do not have access to banking systems.

After establishing a legal entity, we went to banks to find out how much credit really did go to women. We were told by most banks that such records are not kept. We also confirmed that generally women do not have credit unless collateral is provided by either a husband or a father, even though most countries can by law guarantee a loan to a woman or a group of women. Our next step was to hold meetings in five parts of the world to explain our ideas. These meetings were made possible through support from the United Nations Development Program.

Backing up for a minute, I must tell you how difficult it was establishing a legal entity. First we went to see lawyers in New York who put us in touch with a Dutch law firm. Since our initial encounter, the Dutch lawyer who finally met with us has been one of the most loyal supporters of our effort. He was intrigued by our ideas when we specifically explained that we did not want to start a bank that was exclusively for women. Instead, we were trying to find a way to integrate women into the economy. He is now the secretary of Women's World Banking and he has personally hand-walked two very serious problems through the Ministry of Finance for us.

Now that we had at least one supporter in Holland, we needed to get support in the United States for a tax exempt legal structure. We also wanted recognition from the World Bank. We asked Mr. Burke Knapp to speak at our first international meeting. Since that meeting, Mr. Knapp has been on our Board. So has the former general counsel of the World Bank, who has assisted us with our international contracts. He also had access to valuable information and experience about how banking is done that most women had not had. This is, therefore, another good example of why it is important to look for methods of integrating men and women when dealing with money.

I believe there is much to be gained by integrating men and women with skills and commitment toward an end. One of our male trustees is general manager of the NMB, which is the third largest commercial bank in the Netherlands. He has been enormously valuable in teaching other trustees what he has learned from his banking experiences. Likewise, each person goes on the Board with the understanding that he or she will help to educate others. When each person transfers information from his or her field, everyone learns a great deal. This learning and sharing of information has been vital to the growth of our organization.

Once we began to get support and positive feedback on our ideas from some key people in the development and banking worlds, we had to concentrate on the specifics of our program. We introduced the idea of having an umbrella organization with a board of trustees, composed of men and women from around the world and from all different sectors of the economy managing a source of capital and a small promotion office. Since Women's World Banking is supported by many governments, corporations, foundations and individuals, the organization is not owned by any one group of people. Instead, it is a global trust, a global source of capital, which is used to promote the enterprise and the productive development of women in their economies. Women's World Banking is owned by people around the world -- several thousand individuals. We are very grateful to all of you for your support.

Now that we have discussed some essential components of WWB, let us focus more specifically on how it works. Our capital fund, for instance, is like a life support system. Every dollar that goes into our capital fund can be leveraged up to ten times. For example, if you give a dollar to the fund, it can be leveraged from a minimum of $10.00 to a maximum of $80.00. It is important to remember that this new money is in the private sector and can, therefore, earn interest at market rates. You can see how exciting this

would be for women who have never before had access to such capital. In order to keep building up the capital fund, expenses of administration are paid for from other sources (including interest from the capital fund). I cannot over emphasize the importance of the capital fund. It is reserved for building businesses in developing communities worldwide.

To use this source of capital, women in business communities work in collaboration with local affiliates. An affiliate is a group of people who take the responsibility to legally register in their own country. We do not care if the legal entity is a trust fund, a corporation, a credit union or a cooperative. Sometimes it is an organization which already exists. It must, however, be approved by the government as having a commitment to helping women move into the formal economy. It must also be registered in such a way that it can act as a "legal person." The group must raise a small amount of local capital to be put on deposit in a bank under the group's name. This act of putting money on deposit creates ownership. In other words, those individuals have a capital base, they have legal responsibility, and they have legal recognition in the business community. Next, they have to take responsibility in negotiating contracts. This is an important step; I have worked with many lawyers and directors of banks who have said that when it comes to sitting down and negotiating a contract with a banker, a woman will run the other way. We worked with one woman for eight months before she finally had the confidence to go into a bank, sit down, and negotiate a guarantee contract. We believe this is an integral part of the whole process of learning to be an equal citizen, and taking responsibility for what you want and for what you are entitled.

One such affiliate organization is in Columbia. It was started by very energetic, high powered, individualistic women who were motivated at an international meeting in Latin America. Initially they raised $5,000 in pesos. When we announced that we were signing our first $10,000 letter of credit, it went to this group. They soon had a commitment from two local banks; one of the banks had never made loans to women, the other released $150,000 of pesos for loans to women who never before had loans. Only three and a half years later, that program has a local value of equivalent of approximately $350,000 U. S. dollars. All of this value is in women's names. Although some of this money was in local businesses already, it was not registered as women's businesses and was unqualified for formal sector lending. Today, this group has two lines of credit. One enables them to administer micro informal loans for market women from which they are earning interest. In fact, they are now a self-supporting organization in terms of administration.

This group I have just described no longer needs to raise charity money in order to exist. They are able to assist women who are productive members of the business community. Once they have this credibility, they can take advantage of some of the benefits the modern economy has to offer: they have access to new technology and credit and they can take advantage of trading opportunities nationally and internationally.

A similar affiliate in the Dominican Republic is also self-supporting. It works strictly through banks, and is able to provide two or three levels of credit to individuals. By transferring lines of credit to the branch, the bank has enabled the affiliate to earn an income. These women are so sophisticated that they are now well on their way to having the minimum capitalization needed to become a bank in their own right.

Women's World Banking is not a bank. The legal structure which we have created, however, says to each one of the affiliates: "You can do whatever you want; and if under your own laws you want to become a bank, be our guest. Maybe we will be able to help you with capitalization." This is possible because we are not restricted by the laws of other countries. Although WWB may become a bank some day, we would like to remain an intermediary, acting in collaboration with banking and financial institutions in all countries. We are excited that the affiliates are taking on responsibility and initiative.

A vice president of Barclays who is also chairperson of Kenya Women Finance Trust from Kenya is working full time as head of Women's World Banking regional operations in Africa. We are also negotiating with a banker in Rio de Janeiro to establish similar activities in Latin America. We pay half her salary and all her expenses (except for her office and secretary). She is responsible for developing the same regional reinforcement and access to banking services that we now have in Africa. While we hope for similar operations in Asia and the South Pacific, we do not do anything until the women in each particular region initiate the action.

These regional activities are extremely advantageous to our program, because they bring people together. The Latin Americans meet once a year, either on their own or at our international meeting. We have often been criticized for the chaotic manner in which we meet, but it serves our purposes well. The object of the meetings, you must understand, is to get feedback from the affiliates and to see what people need. We also try to discuss as many problems as we can.

Sometimes we spend as much as half of each meeting reiterating the fact the WWB/NY does not use the capital fund for its expenses. It is often difficult for some to understand that the capital fund is owned by everybody. As a consequence, therefore, if somebody defaults on a loan, everyone in WWB will lose. This is a difficult concept to explain. Many people thought the capital fund should be distributed

among everybody, but we must keep explaining that the fund is an endowment. I think most people are beginning to understand what the capital fund is, but this is just one example of the many educational processes that seem to take longer than we expected. I think now you will begin to see why it is necessary to have these large regional meetings that are open-ended.

An important component of our program which I have not yet discussed is the New York office. One of the things we try to do through the New York office, in terms of promotion, is to maintain a bureaucracy that we can afford. This is a difficult task. Not only are we trying to do fund raising and promotion, we are also trying to communicate. Originally, we expected to have twelve groups in five years. Instead, we have forty-one. Responding on a personal basis to each group as well as going through the process of contract signing and negotiations has been difficult. Performing these tasks simultaneously requires an enormous amount of commitment and energy on the part of all of us.

Having to deal with these new pressures and demands, I now feel I have a better sense of leadership. When I say leadership, I do not mean control. Control is not what I wanted by taking on the presidency of Women's World Banking. Instead, I am referring to the concept of creating an atmosphere that will encourage people to do what they want. As a result of this attitude, I now say: "Well, I'm not going to do any day-to-day work in the office anymore, you all have to do it and if it doesn't get done, well, it won't get done." Instead of controlling people, I think leadership means encouraging them to take responsibility. Just this morning, for example, I learned that some major decisions were made in my absence. The office is still afloat and surviving, so I must have taught them something about leadership.

Getting back to the affiliates for a moment, I want to tell you about our program in Thailand. Thailand is a wonderful example in development. A core group of women came to every meeting WWB has had since 1980. At the end of four years, one of these women came to me and said: "We've done it! We've gotten approval." At first, I did not know what she was talking about. Then she said she had gotten the Bank of Bangkok, the Thai government and all of the NGO's in Thailand to support a program launched by Women's World Banking. The Women's World Banking Thailand now has a fund that it maintains with support from all the NGO's and the government. Furthermore, the Bangkok Bank made a major loan to help finance a dairy industry and the government supported this step by making an additional loan to buy cattle from New Zealand. The financing was used to train women in artificial insemination and in dairy farming.

The women in Thailand are now starting a marketing cooperative. The major financing for this program has also come from the government and the Bangkok Bank. The woman who started this program is the senior vice president of the Bangkok Bank. She and the other women were successful in using all the clout they had to develop this dairy program. This is another example of how small scale, effective enterprises can work where women are the major decision makers and are responsible at any level. I would like to say a little about my recent trip. Let me begin by telling you about a group of women in Australia. Before I left on the trip, I received a letter from Australia saying they had established a million dollars in a trust to start a Women's World Banking program to be utilized for income generation. I urged them to change their terminology from "income generation" to "small business development." Although this may seem trivial, it is an important distinction that must be clarified. There is a lot of "income generation" going on out there. For example, if you go into a country where women are working in industry, often times their income goes to someone else or out of the country. So the question here is not "income generation" in and of itself, but "income generation and business development" for women.

My visits to New Zealand, the South Pacific Islands, Papua New Guinea, and Western Samoa were also very enlightening. The women I met have no independent access to credit except through the UN Voluntary Fund (a revolving loan fund for rural women which is administered out of a development bank). I decided to visit the ministries responsible for legally registering companies. As a result of this visit, we have their word that if a request is submitted to a legal company, it will be approved. In each country, therefore, we have a committee of six women working to establish and prepare the legal papers. We identified people in donor institutions who were willing to make our program work. It is my goal and my dream to see some kind of legal registration in each one of these countries and an umbrella relationship under a South Pacific Economic Cooperation Organization. If there is a legal registration of organizations run by women, they should be able to gain equal representation to benefits from the UN, the World Bank and the development banks. If we can help set up some new business schemes in these countries, I think we will need to go to women around the world and get them to act as partners, to make investments in these women's efforts.

Another new activity of our program is women. Most women will open up to us and talk about their problems and insecurities. They talk most readily about having very low incomes, which is directly related to the emotional life of the family. I think it is helpful for people to talk openly. More information is transferred among women than from men to women. I am sure many men can communicate openly among themselves, but there is a certain dynamic created as soon as a male banker starts talking to a woman. He is often the expert, so the women steps back. Experts create dependency. This is a problem, so I think we need to look at ourselves as specialists, not experts.

Certainly there are no experts at this game and I have looked the world over. I do, however, think there is something to be said for looking to women as role models in the whole question of finance, banking and business.

In order to facilitate our training program, this year we hired a woman who spent eight months going to ten countries and writing Harvard University case studies on small scale businesses. She looked into cases where a woman might have problems, because her accountant had given her the wrong information or because she did not know how to keep her books. Despite some minor problems, each one of these cases is a viable, successful business. We plan to use these cases, along with training manuals for business plans and trading. We will train local trainers through local affiliates who can conduct training programs to raise revenues for their own activities locally.

One of the most important things you could do for developing countries is to look at their economies and determine the industries in which they focus their productive energies. Then you can figure out what might be done to create viable enterprise environments for those groups who are not controlled by governments. This is where I think WWB can collaborate with people like yourselves. It seems to me that this should be done in such a way that the information does not end up on the cutting room floors of aid programs in government offices. Instead, information must get out into the open arena to women. It must be fed into more innovative, entrepreneurial ideas on how to strengthen women's roles so that they do have control over the money that they make.

The bottom line, therefore, is that women can learn to collaborate and to trust each other in the professional arena. We need to realize that by helping other women, we are also helping ourselves. If we can learn to rely on each other, to trust each other, to use each others' skills, talents and economic resources, then we can make a great difference in the lives of women all over the world.

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MANAGERIAL RESPONSE AND ROLE ADAPTATION INVOLVED FOR WOMEN IN MEETING A POLITICAL VOLUNTEER DEMAND

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Abstract

A systems stress model was developed to investigate managerial strategies used by 69 wife/mother volunteers in a Family Community Leadership project. Thirty-four continued volunteering beyond a one year commitment after training, and 35 discontinued. Those who discontinued: 1) had more children, 2) had more children ages 16-18; 3) were more likely to be employed for pay; 4) had increased self-esteem from pre- to post FCL; 5) felt more role strain; 6) reduced participation in other volunteer organizations; and 7) experienced more unusual demands. Managerially, they chose to adjust commitment to and participation in outside activities rather than internal household work activities.

Introduction

Community volunteering by women has long been viewed in our society as socially and politically beneficial. Today, women (more than men) continue to actively volunteer within communities in spite of the fact that more women are employed in the labor market (the 1983 Gallup Survey on Volunteering).

Most studies investigating the impact of volunteer participation focus on the effects of volunteer involvement on the community; i.e., how social and political volunteerism can improve society (9, 14, 15). Despite extensive review of the literature, no studies were found that had looked directly at how the demands of volunteering affect family management and role adaptation with the family. Little is known about the extent to which the wife/mother's volunteer participation influences family managerial responses. Does the self-esteem of the volunteer influence managerial responses and volunteer commitment? Is the degree of individual satisfaction with her managerial responses to the volunteer commitment related to continued volunteer participation? Is there greater flexibility in those families where the wife/mother continues to volunteer? Is role strain experienced by the wife/mother and if so, what is done to adapt to the role strain? What personal characteristics relate to continued volunteer participation? Perhaps if these questions could be answered and then addressed in volunteer recruitment and training, more volunteers could be recruited and retained. Furthermore, if these questions were answered, professionals concerned about the quality of life for families, could more confidently provide assistance to help volunteers more easily balance roles of wife, mother, employee.

To discover what impact an added volunteer role has on the family, this study investigated factors related to role adaptation and managerial strategies used when wife/mother participated in a volunteer training and action program. This paper reports findings and implications from this recent study.

Research Design

The data for this study were solicited in two phases from 78 Oregon women who participated in a Family Community Leadership (FCL) Project. The sample consists of 69 respondents who returned two questionnaires. Phase I data were collected at the onset of the respondent's week long FCL training. The FCL project held three trainings between March 1982 and February 1983. Phase II data were collected in August, 1984, through a mailed questionnaire. At the time of the Phase II data collection, all respondents had completed at least a one year FCL volunteer commitment. This FCL project, funded by the W. K. Kellogg Foundation, was designed to help women become more actively and effectively involved as volunteers in the community political arena. Oregon is one of six Western states participating in the FCL project.

The sample divided itself into two groups—those who discontinued after their own year FCL volunteer commitment, and those who continued. Comparing these two groups presented an opportunity to more fully understand the role adaptation and managerial strategies used by the FCL participants. It is generally assumed that FCL volunteer activity was similar (or comparable) for all 69 respondents. These two groups were nearly equal in size. Due to the small sample and the comparison of the two groups, a significance level of $p \leq .10$ was set.

Volunteer Demand Adjustment: A Social Stress Model

In order to assess the complexity of the wife/mother's adjustment to the demands presented by a volunteer role, an ecosystems approach in the form of a Social Stress Model has been developed for understanding and empirically examining the dynamic adjustment made by FCL volunteers (Figure 1). A social stress framework developed by George (5) provided the basis for the model. The interactive nature of the variables is illustrated by the arrows within the model. Expectations for the respondents in the FCL role included volunteering 16 hours per month, specifically training others to become involved in community decision-making.

The variables proposed to be central to the wife/mother's adjustment are: (1) Conditioning variables; (2) Pre-change; (3) Managerial responses; and (4) Perception of role stress. New self-esteem and a specific response to the FCL commitment (beyond one year) are proposed as the outcomes of this model.

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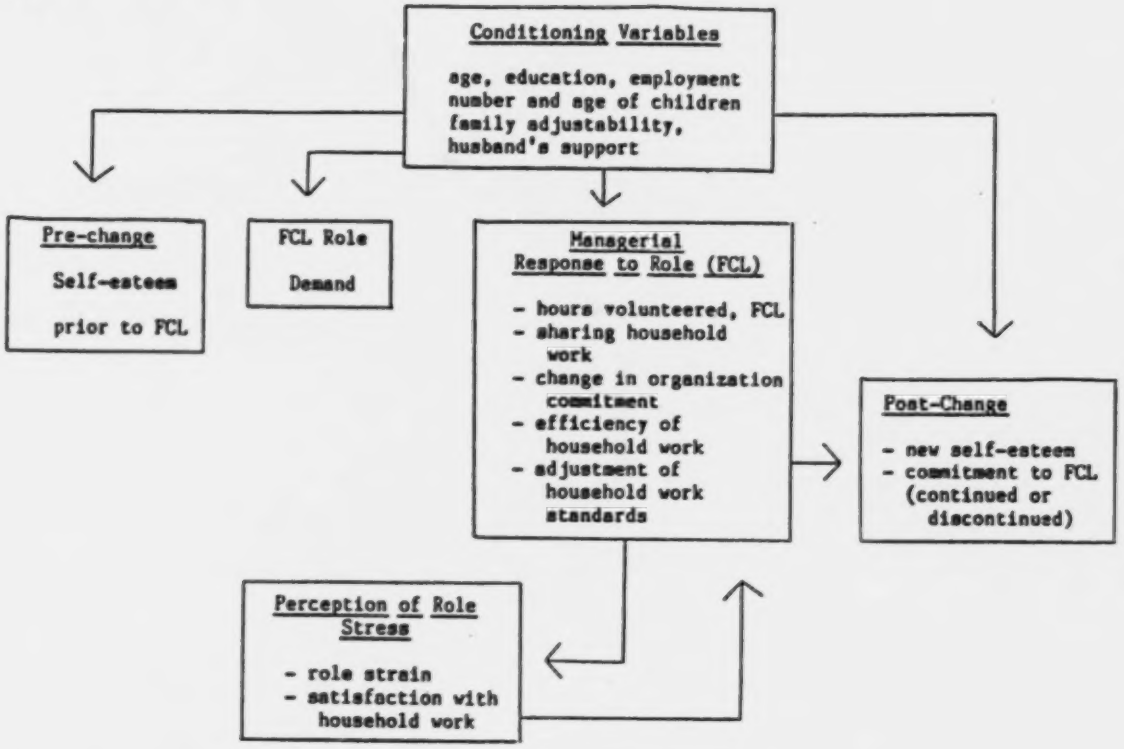
FIGURE 1. Adjustment to FCL Demand: A Social Stress Model



Findings and Discussion

Conditioning Variables

The respondents in this study appeared to be fairly typical of women volunteers in the United States (16). They were highly educated, with 56 percent having a college education; had a mean income of between $20,000-$24,999; and were relatively young, with 69 percent of the respondents beteen the ages of 26 and 45. Thirty-four percent lived in rural areas, 25 percent in villages or towns up to 9,999, and 41 percent in cities over 10,000. Most of the respondents in this study were married (88%).

Number and Ages of Children.

Seventy-four percent of the sample had children under age 18 living at home at the time the respondents decided to continue or discontinue their FCL volunteer role. There was a statistically significant difference between the two groups (those who continued and those who discontinued) in the number of children under age 18 at home (X^2, df=4; p=.05). Those who discontinued had more children.

In comparing subdivided age groups (1) age 1-5, (2) 6-11, (3) 12-15, and (4) 16-18, those who continued and those who discontinued had significantly more children in the age group 16-18 (t-test; p=.03).

Employment.

Sixty-seven percent of the total sample were employed, working an average of 33 hours per week. Seventy-seven percent of those who discontinued were employed, compared to 55 percent of those who continued with FCL. Respondents who discontinued were more likely to be employed than those who continued (X^2, p=.05). It appears paid work commitment was a factor which influenced respondents in making the decision to discontinue FCL participation.

Forty percent of those respondents who discontinued indicated that FCL "conflicted with paid employment" as a reason for discontinuing. However, as reported in previous volunteer surveys, paid work alone does not inhibit volunteer activity. In fact, 65 percent of those individuals who work (paid employment) part-time also volunteer, whereas 55 percent of full-time workers volunteer and only 45 of those who are not employed, volunteer (16).

Family Adjustability.

In viewing a family from an ecosystem approach, it can be recognized that the well-being of family members is dependent on their ability to adjust. For a family to survive, it must be able to operate as both a morphogenic system using behaviors that enable the system to grow, create, innovate and change and as a morphostatic system with

behaviors that support maintenance of status quo and stability. Olson and McCubbins (12) believe that the most viable family systems are those that maintain a balance between morphogenesis and morphastasis. As can be seen in the FCL stress model (Figure 1), it was proposed that family adjustability would be associated with actual managerial responses to the volunteer demand.

In this study a 14 item adaptability scale (13) was administered. There was no statistically significant difference between the two groups in the degree of family adaptability (t-test; p=.66). For those who discontinued, the mean was 49, (S.D. 11); and for those who continued, the mean was 47, (S.D. 10). According to the circumplex model, the scores for both groups would place them into the classification of "structured" (approaching "flexible") or balanced range, rather than in the other categories of "rigid", "flexible", or "chaotic." Olson, Russell & Sprenkle (13) believes those families falling in this balanced range have the greatest potential for satisfactorily adjusting to demands.

Husband's Support.

Another conditioning or mediating variable identified as influencing the wife/mother's adjustment to a new role is husband's support (Figure 1). Schram and Dunsing (15) reported that husbands' attitudes about wives volunteering outside the home were the most important social-psychological variable in women's volunteer participation. The vast majority (77%) of the respondents in this study indicated their husbands did support their FCL volunteering. Only 10 percent perceived their husbands did not support their FCL involvement. Because of this small percentage no statistical comparison of the two groups was made.

Self-Esteem

In this study it was proposed that level of self-esteem (evaluative assessment of oneself as an object) (5) influences the selection of roles and becomes a major motivational force in behavior. Considering self-esteem of an individual can be useful in determining why a given role demand (i.e., volunteering in FCL) may be perceived as stressful by one individual and not by another. Furthermore, it is known that the importance of the role and perceived ability to perform the role is related to level of self-esteem (8).

No previous studies have directly examined change in self-esteem levels in connection with volunteer participation. However, Antonucci and Coleman (1) found that middle-aged women participating in the work force had higher levels of self-esteem than those not employed. This same factor may well operate in the volunteer setting.

Difference in respondents' pre- and current FCL participation levels of self-esteem was investigated. Both the respondents who continued with FCL and those who discontinued had higher levels of self-esteem after FCL training and volunteer experience. However, only those who discontinued had experienced a statistically significant increase in level of self-esteem over this time period (paired t-test; p=.00).

Current level of self-esteem was nearly equal for both groups, a mean of 112.33 (S.D. 10) for those who continued FCL (Table 1). It may be concluded that level of self-esteem was not a factor in the decision to continue with FCL participation; however, the significant increase in level of self-esteem on the part of those who discontinued is a finding which could be consistent with one's confidence in making a role change decision. In any case, self-esteem is probably a variable worth continued investigation within a dynamic, demand adjustment model such as this one (Figure 1).

Managerial Responses

Of major interest in this study was the managerial response participants used in regard to the FCL role demand. Conceptually, in the FCL Stress Model, managerial responses were viewed as interactive with (1) conditioning variables, (2) FCL role demand, and (3) perception of role stress. Furthermore, an output of the managerial responses could be (a) continued commitment to FCL role, (b) discontinued commitment to the FCL role and/or (c) a new level of self-esteem. Specific managerial responses measured were: 1) number of hours volunteered with FCL per week, 2) degree of shared household work, 3) commitment to other volunteer organizations, 4) perception of household work efficiency, and 5) perception of degree of change in standards for household work.

Number of Hours Volunteered with FCL.

On the Phase II questionnaire, respondents were asked to indicate the number of hours they were volunteering with FCL at the point they decided to continue or discontinue affiliation with FCL. The mean number of hours volunteered per week by those who discontinued FCL was 3 hours (S.D. 3) compared to 4 hours (S.D. 2) volunteered by those who continued, a finding which was not statistically significant (t-test; p=.40).

Shared Roles in Household Work.

There are many factors relating to adoption of shared roles among married couples. Haas (7) reported that although the wife may be committed to work outside the home, she usually does not share equally with her husband the obligation to provide income. Furthermore, the husband usually does no more than "help out" with housework.

Nickols and Metzen (11), in a longitudinal study of time allocation to productivity (employment and housework), found the wife to be the major houseworker in nearly all families. Furthermore, wife's employment did not have a significant effect on husband's household work time. In fact, Goebel (1981) found that husbands contributed to a greater number of hours (2.3 per day) to housework when the wife was not employed, compared to full-time employed wives. The Nickols and Fox (10) study provided further evidence that employed wives reduce the quantity of time spent in household work to accommodate to outside time pressures and their spouses adjust little in the household

work category. Interaction between time devoted to volunteer work and shared roles has not been reported in the literature.

Respondents in this study were asked to indicate for eight household tasks the degree of sharing with husband, children, or others. They indicated who did each household task by means of a seven step continuum as follows: (1) wife only; (2) mainly wife; (3) shared equally; (4) mainly husband; (5) only husband; (6) child; (7) other.

Responses were combined for the eight tasks, and respondents were categorized into one of three groups: household tasks not shared, partly shared, and shared. However, it should be noted that, in this study, "shared" category is not to be equated with "equal sharing" of household work activities. Criteria for scoring were similar to that used by Ericksen, Yancy & Ericksen (4).

No statistically significant difference was found between the respondent who continued with FCL and those who discontinued in the degree of household task sharing (t-test; p=.64). In both groups there was a low degree of shared household work. Nearly equal numbers of respondents who continued and discontinued (28 percent and 26 percent, respectively) indicated they did not share household work. Similarly, nearly equal numbers of respondents indicated they "partly shared" household tasks.

Ericksen, Yancy & Ericksen (4) in a study of division of family roles, found women's education and family income to be related to role sharing. The higher the education level of the wife and the more income, the more sharing of family roles. This insight may partially explain the finding that 73 percent of the respondents in this study fit into the combined categories of "partly shared" or "shared" versus the "not shared" category. as previously point out, the respondents in this study were highly educated and their family incomes were above average.

Commitment to Other Volunteer Organizations.

Prior to the FCL training, respondents were asked to list their organization memberships and designate their level of commitment, reflecting regularity of attendance, officer and/or committee member roles. These data were again collected in Phase II to allow the researcher to determine change in organizational commitment as a potential managerial response.

Utilizing an analysis of covariance (with pre-level being the covariate) for the total sample, change in commitment to other organizations was found to be statistically significant (F=.06). The respondents' current level of commitment to other organizations was lower than at the pre-participation level.

In a paired t-test analysis it was found that both groups had a lower mean commitment score at the current level compared to pre-level; however, only those who discontinued had a significant drop in organizational commitment between Phase I and Phase II, (Paired t-test; p=.00).

Perception of Household Work Efficiency.

Deacon and Firebaugh (3) state that home management functions to meet demands. Thus, managerial strategy to increase household work efficiency might have been used to adjust to or make time for the FCL demand. In this study respondents were asked to indicate on a scale of 1 to 15 if they were more efficient in getting their household work done since being involved in FCL. There was no statistically significant difference found between the two groups in relation to their perception of changed efficiency in household work since becoming involved in FCL (t-test; p=.35).

Considering all respondents, 42 percent indicated no change in household efficiency, whereas 32 percent perceived less efficiency with household work since volunteering with FCL and 26 percent perceived more efficiency with household work. Perhaps many FCL volunteer participants were not aware of "increased efficiency" as being a viable managerial strategy in adjusting to the FCL role demand. Moreover, since one-third of the respondents reported their efficiency decreased with this added volunteer demand, this may point to the possibility those those respondents have low skill levels in relation to their management strategy.

Perception of Change in Household Work Standards.

Lowering household work standards is another managerial strategy sometimes used to adjust to an added demand (2). A popular notion in the field of home management is that if demands are too high, standards will be lowered.

Respondents were asked to indicate if they had lowered their household work standards since being involved in FCL. With a 1-5 response scale (1=strongly disagree; 3=neither; 5=strongly agree), 72 percent of the respondents in this study indicated that they did not have to lower their household work standards. The mean score for those respondents who discontinued was 2. And, for those respondents who continued, the score was 2.7; no statistically significant difference was found (t-test; p=.68). Perhaps the FCL demand offered enough flexibility in volunteer time to allow the wife/mother to maintain previous household standards.

Logistic Stepwise Regression Model for Managerial Responses.

A further, more powerful, analysis, logistic stepwise regression was performed to predict differences in managerial responses. Those independent managerial response variables entered into the model were: (1) number of hours volunteered with FCL, (2) degree of shared household tasks, (3) commitment to other organizations, (4) efficiency of household work, and (5) change in standards for household work since becoming involved in FCL. Only variable (3), commitment to other organizations, proved to be predictive and remained in the model. This analysis supported previous analyses on individual managerial response variables in that "commitment to other organizations" was the only significant effect found.

Role Stress

Perception of Role Strain.

Role strain, for this study, was viewed as a perceived conflict between the FCL demand and existing home and family roles. Two statements: "I feel guilty about not getting the household work done," and, "I felt guilty because the FCL volunteering was taking too much time away from my family management responsibilities," were presented and the respondents indicated the degree of agreement or disagreement on a scale of 1 to 5 within each statement. The combined responses represented "role strain."

A statistically significant difference between the two groups in the amount of felt role strain (t-test; p=.01) was found. Those who discontinued felt a higher degree of role strain, with a mean of 5.5 (S.D. 2.0) compared to those who continued, who had a mean of 4.6 (S.D. 2.1).

In considering the role strain felt in relation to housework only, a statistically significant difference was also found between those who continued and those who discontinued affiliation with FCL (t-test; p=.0). Twice as many of those respondents (38%) who discontinued agreed that they felt guilty about not getting household work done compared to those who continued, (19%). On the other hand, 55 percent of those respondents who continued did not feel guilty about not getting household work done, compared to 38 percent of those who discontinued.

Role strain felt in relation to FCL volunteering taking too much time away from family management responsibilities, was also found to be significantly different for the two groups (t-test; p=.09). Twice as many (24%) of those who discontinued agreed they felt guilty about the FCL role taking too much time compared to those who continued (13%).

Degree of Satisfaction with Household Work.

Another factor proposed to be contributing to role stress was the respondent's perceived satisfaction with household work (see FCL Stress Model, Figure 1). Respondents were asked to indicate on a scale of 1 to 5 their degree of satisfaction with the (1) amount of household work being done in the family and (2) degree of satisfaction with the division of household work among family members. Responses to the two questions were summed and no statistically significant difference was found between the two groups in relation to overall satisfaction with household work (t-test; p=.81.)

Satisfaction with the Amount of Household Work.

Comparing the two groups (continued, discontinued), there was no statistically significant difference found in satisfaction with the amount of household work getting done, (t-test; p=.11). Forty-four percent of those who discontinued were dissatisfied with the amount of household work getting done compared to 27 percent of those who continued. On the other hand, there were 44 percent of those who discontinued FCL who were satisfied with the amount of household work being done compared to 60 percent of those who continued.

This could influence perceived role stress and managerial strategies used by the respondents, such as sharing of household work, efficiency of household work, and standards of household work. Perhaps the relatively high degree of satisfaction in the amount of household work getting done helps explain why managerial strategies (e.g. sharing of household work, increased household work efficiency, and lowered standards for household work) were not employed to any great extent.

Satisfaction with Division of Household Work.

Still another factor proposed to be related to role stress was satisfaction with the division of household work. Respondents were more satisfied than dissatisfied with the division of household work. There was no statistically significant difference between the two groups in the degree of satisfaction with division of household work (t-test; p=.25), even though twice as many (41%) of those who discontinued were dissatisfied with the division of household work compared to those who continued.

Goebel (6), considering wives who combined full-time employment with household work, reported that traditional couples were twice as dissatisfied with household work as were those less traditional couples. Perhaps the high degree of satisfaction with household work in this study may be partially explained by the less traditional nature of the sample. They were highly educated, had an above average income, and chose to be involved in a politically oriented volunteer program.

Unusual Demands

Assuming that the ability to adjust to a new role, such as FCL volunteering, could be influenced by many factors beyond those variables identified from reviewing the literature and diagrammed in the FCL Stress Model (Figure 1), a variable was included to assess the influence of any unusual family or environmental demands experienced in the past two years. Respondents were asked to respond to eight unusual demands.

a. Your health, illness
b. Husband's health, illness
c. Other family member's health, illness
d. Moved
e. Additional family member living at home
f. Fewer family members living at home
g. Change in marital status
h. Other (specify)

Those who discontinued had more unusual demands in the last two years (t-test; p.=.01). This finding helps to emphasize that adjustment to an added demand (FCL) may be heavily influenced by events beyond an individual's control and must not be overlooked in developing systems model.

Managerial Response Implications

One implication that can be gleaned from this ecosystem approach to investigating the volunteer role adjustment is an appreciation of the interaction of perceived role stress and managerial responses. It was observed that those who discontinued participation in FCL felt significantly more role strain, which appeared to influence managerial responses such as commitment to other organizations and continued commitment to FCL. Other managerial systems model (3) have not directly incorporated perception of role stress as being a major variable influencing managerial reponse. Again, referring back to the FCL Stress Model (Figure 1), it is unclear from this study what impact the respondent's self-esteem may have had on adjusting to the FCL role demand. However, this researcher suggests that it should be included in other models related to managerial responses to a specific demand because of its influence on behavior.

Managerial adjustments by FCL participants were those related to outside activities rather than internal to the family. It is possible that respondents found it more difficult to alter the family managerial responsibilities than non-family responsibilities such as FCL participation and other organizational commitment. Perhaps respondents chose the managerial response of adjusting "outside" activities because they were unsure of strategies to use in adjusting intra-family managerial activities. Could it be that respondents were unwilling to risk using managerial stragies such as increased household work efficiency, lowering standards and further sharing of household work? While the chosen strategy may have been easier or "less complex," it clearly reduced the amount of trained "women power" available to the volunteer sector of society, at least in the short run. These trained women who discontinued FCL potentially have the ability to influence future community political decisions that can impact families. It is not known whether this decision reduced or created additional conflict for the wife/mother.

Furthermore, could it be that volunteers (such as those in this sample) take on a volunteer role only when they perceive this role will not interfere with other family managerial activities? If this is so, then one would expect little change in managerial activities such as lowering standards and increased efficiency of household work or sharing household work with others.

Finally, it appears that professionals involved in training volunteers and concerned with volunteer retention could benefit from knowing that those who discontinued did experience more role strain and did choose both to discontinue FCL and decrease commitment to other organizations. Perhaps professionals could be more sensitive in planning training and include sessions on how to balance the volunteer role demand along with other work and family activities. They may also wish to design a system which is flexible in responding to family demands so that the maximum amount of human capital remains available to society. Skills in using family management strategies to balance societal and family demands are learned and must not be assumed to be a "given" when planning volunteer training activities. A more wholistic approach such as that diagrammed in the FCL Stress Model, must be considered.

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THE RURAL ELDERLY: SHOPPING PATTERNS AND ATTITUDES

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Abstract

This study describes, for rural elderly persons, the frequency and duration of shopping trips; the mode of transportation used to reach store locations; and the attitudes of rural elderly persons toward shopping as delineated by shopping orientations. An additional objective is to determine whether shopping activity can be best predicted by mode of transportation, shopping orientations, or socioeconomic variables.

Beginning in the 1960s, rural areas and small towns experienced migration patterns that resulted in a growth of their number of elderly. As the public became aware of the problems of the elderly, legislation was passed that resulted in the creation of special services for the elderly: senior citizen clubs, homemaker services, meals on-wheels, retired volunteer programs, and other programs. Considerable research has attempted to assess whether these special services have been equally available and appropriate for both rural and urban elderly (1,9,20). However, few researchers have investigated the availability of basic services to residents of rural areas. Information is especially limited on the patterns and attitudes of rural elderly persons as they relate to shopping opportunities available in small towns (10,17,21).

The purpose of this study is to determine the frequency and duration of shopping trips for grocery and nongrocery items made by a sample of 230 rural elderly persons. The mode of transportation used for these trips, attitudes toward shopping, and selected socioeconomic variables are studied to determine their effect on shopping trips.

Methodology

Dependent Variables

The four dependent variables in this study are the frequency and duration of grocery and nongrocery shopping trips. Frequency of trips was measured by asking "How often do you visit the grocery store?" and "How often do you go shopping for items other than groceries (for example, drugs, clothing, gifts, books)?" A follow-up item for each question asked the respondent to indicate how long they stayed. The original survey instrument grouped all shopping activity together, but elderly respondents who pretested the instrument indicated a need to distinguish between grocery and other-than-grocery shopping trips.

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In one of the few studies to investigate the basic services available to rural elderly, Windley (22) determined that the grocery store and the post office were used at least once a week. Used once a month or more was the bank, cafe, beauty/barber, tavern, church, and senior citizen center. Another survey of rural elderly indicated that most elderly visit a grocery store at least once a week, with 2 to 3 times the mode (1). In regard to duration, it has been suggested that older people take longer at stores due to slower walking gait as well as a more leisurely orientation to the task of shopping (12). Since no published data indicates expected duration of shopping trips for elderly persons, responses from pretesting determined the choice categories in this study.

Independent Variables

The mode of transportation used to visit the grocery or nongrocery store is believed to have an important influence on how often an elderly person goes shopping and on how long the shopping trip lasts. Previous research on elderly persons and transportation options suggests that driving oneself is the most prevalent form of transportation (12). Riding with another person, such as spouse, child, or friend is another common mode (18). Walking to available services is especially prevalent in very small towns (22), but taxi and public transit are not usually available in rural communities (12).

Marketers have long experimented with the use of marketplace-specific activity and attitude (also called pychographic) variables as predictors of shopping, purchase, and consumptive behavior (2,3). Although orientation or attitude toward the task of shopping has been measured for consumers as a whole, marketers have not used the concept to segment an elderly population. A few gerontologists have attempted to use attitude factors to explain food shopping behavior. In examining proportion of food budget categories, Axelson and Penfield (1) discovered that elderly persons with a high "frugal-utilitarian" orientation spent larger proportions of their budget on fruit purchases.

In this study, attitude toward shopping is measured by Stone's (19) four consumer orientations (see Table 1 for a list of the Likert items that make up each orientation). The economic orientation emphasizes the challenge of finding the best price, quality, and variety. The orientation that emphasizes the friendly interaction between storeperson and customer is named personalizer. The ethical orientation emphasizes the customer belief in his/her own moral obligation to support small businesses. The fourth orientation is named apathetic and emphasizes a disinterest in shopping.

For this study of elderly persons, a fifth measure of attitudes has been added that is deemed to be unique to this population. The orientation

TABLE 1. Composition of shopping orientation scales.

Economic
- A person can save a lot of money be shopping around for bargains.
- Shopping is too expensive in small stores.
- I like to think of shopping for the best buy as a challenge.
- Clerks in small stores are too nosey.
- Large department stores give better service.
- I shop a lot for specials.
- Big chains offer better bargains.
- Department stores have a wider selection of goods.
- Department stores have more reasonable prices.

Personalizer
- Sales people get to know you and your needs better in local stores.
- I like it when clerks know your name.
- People are friendly at local stores.
- Local merchants take more interest in you.
- Local merchants make an effort to please you.
- Because people have to wait on themselves, chain stores are run like a factory.

Ethical
- Chain stores put people out of work.
- You have to give the independent merchant a chance to earn a living.
- It would be better if all stores were owned by local merchants.

Apathetic
- Whichever store is the closest is OK with me.
- I always seem to end up doing my Christmas shopping the day before Christmas.
- I don't mind spending a little extra money if I can get my shopping done quicker.
- I try to get my shopping done as fast as I can.
- Shopping is really a bother in any store.
- The best thing about chain stores is you can get everything in one trip.

Timeuser
- Sometimes I go shopping just to get out of the house.
- I would like to do a little shopping everyday, if I could.
- Going shopping helps me use up my spare time.
- Window shopping is one of my favorite past-times.
- Sometimes I walk around stores just for exercise.
- I enjoy going to the stores just to see what's new.

timeuser was created based on suggestions that shopping is used by older individuals as a way to use the additional time afforded by retirement. Although some researchers see shopping as a subsistence rather than a leisure activity (4,15), others consider shopping a routine that can be expanded to fill free time or a source of pleasure when there are few recreational opportunities (5, 7,11,16).

The demographic and socioeconomic variables being used in this study are age, sex, number of years in the community, health, education, and annual family income before taxes. These variables were selected because they are those most commonly used by marketers to test the power of demographic versus psychographic variables in predicting shopping behavior (2,3,14). Research is inconclusive concerning the ability of such variables to distinguish between members versus nonmembers, users versus nonusers, or low activity versus high activity in an elderly population (9).

Questionnaire

The questionnaire was constructed using techniques for increasing response rates for mail surveys (6). Forms of the instrument were pretested with elderly subjects to determine if print size, design, and instruction would be appropriate for the intended sample. In final form, the questionnaire was printed in half-page size, in booklet form, with an illustrated cover page. The questionnaire was sent with a cover letter which was persuasive in tone, with short simple instructions and a promise of anonymity.

Sample

A sample of elderly respondents in Crawford County, Iowa, was obtained by gathering the names of people believed to be age 60 or over from attendance sheets of Senior Citizens Clubs, from county property tax records, from assistance request lists from the community action agency, and from retired community leaders in the county who were able to pinpoint individuals over 60 from phone listings. This yielded a sample of over 800 from which 400 names were randomly selected for use.

Of the 400 questionnaires mailed. 289 responses were received for a response rate of 72%. Fifty-nine of the returned questionnaires were eliminated because the respondent was too young, the addressee was deceased, they were improperly completed, or less than half the questions were answered.

The sample is composed of 230 individuals of which 65% are female. They range in age from 60 to 88 with a mean of 70.9 years. They have lived in their present community for an average of 42 years. About half of the respondents are married (54%) and have an eighth grade education or less (49%). About half (53%) ranked their health as good or excellent and the others rated their health as fair or poor. About 70% report that they own a car or pickup and 60% report that they drive.

Shopping Orientation Scales

Median scores and reliability coefficients for shopping orientation scales are presented in Table 2. The highest possible score was seven for strongly agree and the lowest score was one for strongly disagree. Cronbach's alpha was computed to check the reliability of each scale.

Results

The distribution of frequency and duration of shopping trips are summarized in Table 3. Consistant with previous research, the elderly in this sample visited the grocery store frequently; the modal occurence was twice a week. Trips for nongrocery items are not as frequent; typically it was a once-a-month occurrence. However, when nongrocery shopping trips do occur, the duration of the store visit is longer than for grocery trips.

TABLE 2. Median Scores and Reliability Coefficients of Shopping Orientations Scales.

Orientation	Median[a]	Cronbach's alpha
Economic	3.90(219)	.674(165)
Personalizer	4.59(227)	.761(172)
Ethical	4.05(218)	.534(191)
Apathetic	3.46(222)	.617(178)
Timeuser	3.05(214)	.772(171)

[a]Numbers in parentheses are n

TABLE 3. Frequency Distribution of Shopping Activity (n=230).

Frequency of shopping trips	grocery	nongrocery
once a day	7.8%	1.7%
twice a week	43.5	7.0
once a week	35.2	16.5
once every two weeks	6.1	21.3
once a month	2.2	40.4
very infrequently or never	1.7	9.1
no information	3.5	3.9
	100.0	100.0
Duration of shopping trips	**grocery**	**nongrocery**
about half an hour	82.6%	70.0%
about one hour	14.3	22.2
about two hours	.9	3.5
more than two hours	.4	.4
don't go shopping or no information	1.7	3.9
	100.0	100.0

A little less than half the sample drove their own cars for trips for both grocery and nongrocery supplies (see Tables 4 and 5). Another one-fifth of the respondents walked. About fourteen percent were driven by friends and relatives and twelve percent by their spouses. Less than five percent took a bus or taxi.

The oneway analysis of variance method outlined in the computer program Statistical Package for the Social Sciences (SPSS) (13) was used to analyze the effect of transportation mode on the duration and frequency of shopping trips. For duration of shopping trips, the differences between the five modes of transportation were not great enough to be significant. However, mode of transportation does influence the frequency of grocery and nongrocery trips (Tables 4, 5).

For both groceries and nongroceries, the lower the means listed in Tables 4 and 5, the more frequently the elderly visit the store(s). A Scheffe test indicates that elderly people who go to the grocery store with relatives or friends go significantly (.01) less often than those people who walk or drive their own car. The same test for the groups in Table 5 reveals a significant difference (.05) between elderly who go shopping for nongrocery items with friends and relatives versus those who drive their own car. Again, those who depend on friends and relatives shop less often.

TABLE 4. Oneway Analysis of Variance for Frequency of Shopping Trips to the Grocery Store by Mode of Transportation Used to go to the Grocery Store.

Mode	n	mean	S.D.	S.E.
walk	51	2.29	.86	.12
drive myself	113	2.42	.81	.08
relatives/friends drive	31	3.06	1.15	.21
spouse drives	30	2.67	.99	.18
taxi/bus	4	3.25	1.26	.63
TOTAL	229	2.53	.93[a]	.06[a]
between d.f. 4		between S.S 15.58		
within d.f. 224		within S.S 183.49		
between MS 3.89				
within MS .82				
F ratio = 4.755**				

[a]ungrouped data

**p < 01

TABLE 5. Oneway Analysis of Variance for Frequency of Shopping Trips for Supplies Other Than Groceries by Mode of Transportation Used to go to These Stores.

Mode	n	mean	S.D.	S.E.
walk	48	4.27	1.09	.16
drive myself	118	4.08	1.23	.11
relatives/friends drive	34	4.85	.93	.16
spouse drives	25	4.44	1.04	.21
taxi/bus	5	4.00	1.00	.45
TOTAL	230	4.27	1.16[a]	.08[a]
between d.f. 4		between S.S 17.07		
within d.f. 225		within S.S 290.22		
between MS 4.27				
within MS 1.29				
F ratio = 3.308*				

[a]ungrouped data

* p < 05

The multiple regression procedure contained in SPSS was used to measure the influence of attitude orientations on frequency and duration of shopping

trips. In order to keep a consistent n, and because the number of missing values was low, they were replaced with the appropriate independent variable means. Although regression analysis normally deals with interval data, both the orientations and shopping activity variables in this analysis are ordinal. Kerlinger (8) advises that ordinal-level values can be used with caution when applying interval level statistical analysis.

Attitudes toward shopping explained low levels of variation in frequency or duration of grocery store trips (Tables 6 and 7). The five orientations together explained less than four percent of the variation in frequency of trips and less than two percent of the variation in duration of trips to the grocery store. The nonstandardized regression coefficients (b-values) are not significant, with the exception of a b-value of -.17 (p=.018) for Timeuser in the equation for frequency of grocery store trips. The results of the regression analysis for frequency and duration of nongrocery store trips are not detailed here, but are very similiar to the results for grocery store trips.

TABLE 6. Multiple Regression of Shopping Orientations on Frequency of Trips for Groceries (n=202).

Independent variables	b	Std. E	F	sig
Timeuser	-.17	.07	5.64	.018
Localize	.11	.09	1.29	.257
Economic	.12	.12	1.08	.300
Apathetic	-.06	.09	.42	.519
Personalizer	-.02	.11	.03	.863

R^2=.036

TABLE 7. Multiple Regression of Shopping Orientations on Duration of Trips to the Grocery Store (n=202).

Independent variables	b	Std. E	F	sig
Personalizer	.09	.06	2.53	.113
Localize	-.05	.05	1.24	.266
Timeuser	-.03	.04	.55	.458
Economic	.01	.06	.02	.894
Apathetic	.00	.05	.00	.961

R^2=.015

Regression analysis was also used to test the predictive power of a group of socioeconomic variables (Tables 8 and 9). These variables demonstrate equally low power for explaining variation in frequency or duration of shopping trips to the grocery store.

Although levels of predicted variations were low, we were still interested in the predictive ability of shopping orientation scales while holding constant the effect of socioeconomic variables, and vice versa. When orientation scales were forced into a regression equation first, the addition of socioeconomic variables to the equation added .030 to explained variation in frequency of grocery store trips (Table 10). However, when orientation scales were added to an equation already containing socioeconomic variables, the scales were able to add .046 to explained variation. Thus of the two groups of variables, shopping orientation scales were slightly more powerful in predicting frequency of trips to the grocery store.

TABLE 8. Multiple Regression of Socioeconomic Variables on Frequency of Trips for Groceries (n=202).

Independent variables	b	Std. E	F	sig
Income	-.05	.04	1.70	.194
Health	.05	.09	.32	.575
Time in community	-.00	.00	.50	.481
Age	.00	.01	.15	.701
Sex	-.04	.14	.09	.762
Education	-.01	.05	.05	.822

R^2=.020

TABLE 9. Multiple Regression of Socioeconomic Variables on Duration of Trips to the Grocery Store (n=202).

Independent variables	b	Std. E	F	sig
Income	-.03	.02	2.59	.109
Sex	-.09	.07	1.44	.231
Education	.02	.03	.74	.389
Time in community	-.00	.00	.81	.370
Age	.00	.01	.56	.456
Health	.00	.05	.00	.975

R^2=.026

TABLE 10. Multiple Regression of Socioeconomic Variables and Shopping Orientation Scales on Frequency of Shopping Trips to the Grocery Store (n=202).

Independent variable groups	R^2	
Equation I		
Orientation scales	.036	
Socioeconomic variables	.066	(.030)
Equation II		
Socioeconomic variables	.020	
Orientation scales	.066	(.046)

The opposite case occurred for trips to stores for supplies other than groceries (Table 11). Orientation scales explained less variation when socioeconomic variables were controlled (an addition to R^2 of .018) than did socioeconomic variables when orientation scales were controlled (an addition to R^2 of .029). In regression models to explain variation in the duration of stay at both grocery and nongrocery stores, each group of variables explained approximately three percent of variation when controlling for the other group. Again, it must be noted that all models are predicting only a very small portion of the total variation in shopping trip activity.

TABLE 11. Multiple Regression of Socioeconomic Variables and Shopping Orientation Scales on Frequency of Shopping Trips for Supplies Other than Groceries (n=202).

Independent variable groups	R^2	
Equation I		
Orientation scales	.028	
Socioeconomic variables	.057	(.029)
Equation II		
Socioeconomic variables	.026	
Orientation scales	.044	(.018)

Discussion

The study indicates that frequency of shopping trips for groceries averaged twice a week, while trips for nongrocery items were most likely to occur once a month. The frequent nature of grocery shopping trips indicates that for the elderly individual, the ease of access to grocery stores is established, while frequent trips to nongrocery stores could indicate either a lack of need of such facilities or difficulty in access.

Findings concerning the duration of shopping trips indicate that most individuals stayed about one half hour at the stores whether they were shopping for groceries or nongroceries. Because of the construction of the answer categories, about half an hour is the shortest length of time that respondents could select. Future research may wish to investigate duration in terms of minutes rather than hours.

Marketers have found that demographic and socioeconomic variables are poor predictors of marketplace behavior. This study corroborates such a finding for a sample of the elderly segment of the population. But while marketers have had some success in using Stone's typology to predict certain kinds of marketplace behavior, in this study shopping orientations were not good predictors of frequency or duration of shopping trips. It is not clear, and a subject for further research, whether the scales are not appropriate for use with an elderly sample, or whether they are not appropriate for predicting frequency or duration of shopping trips, or both. An additional question is whether a single predictive statement might function as well as a scale of such statements.

The measurement of the Timeuser orientation in the study was an attempt to discern whether shopping is used as a way to occupy time during the retirement period. Although the Timeuser orientation cannot speak to the actual behavior of the respondent, the findings indicate the attitude is not held that shopping comprises a good way to consume free time. On the contrary, several respondents added comments on their questionnaires indicating that they did not possess any spare time! Even if the elderly are spending additional time on shopping (and there is no proof that they are) they may continue to hold attitudes, based on a lifetime of work, that shopping is not a proper leisure time activity.

Regression analysis indicates that attitudes and socioeconomic variables explain little of the variation in shopping trip frequency or duration. However, mode of transportation does appear to influence the frequency, if not the duration, of shopping trips. Depending on friends or relatives for transportation appears to constrain the opportunities for shopping trips. Such constraints, in turn, reduce the elderly person's alternatives for comparative shopping, forcing uneconomical choices. Such individuals may have to do without needed products longer than they would wish.

If transportation choices are critical to shopping alternatives, future research may need to examine mode of transportation as a dependent variable. For example, when the primary mode of reaching the grocery store is walking, is frequency of trip related to the amount of food that can be carried home? Another rewarding approach to explaining variation in shopping trip activity might be to examine the activity nature of shopping and determine if general activity levels of rural elderly persons can determine specific activity levels such as shopping. Another approach for future research is to assess the style or skill of managing the shopping task as a determinant of the variability in shopping trip frequency and duration.

Public policy and community development professionals may use the results of this study as additional evidence regarding the importance of the location of basic services. A service located such that elderly can reach it with a minimum of assistance is a service more likely to be used. At the same time, educators and others who implement programs for elderly must resist the assumption that the majority of elderly persons engage in extensive shopping as a leisure activity. Like their younger counterparts in the population, the elderly utilize the marketplace in a variety of styles and appreciate the opportunity to choose their own frequency, duration, and location of shopping activity.

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THE RURAL ELDERLY: SHOPPING PATTERNS AND ATTITUDES

Jane Meiners and Mary E. Heltsley

Response by: John R. Burton, University of Utah[1]

This paper addresses a worthy and needed area of study. The Meiners/Heltsley work asks some interesting questions and has a generally competent outline for answering these questions. It was disappointing to see that they found so few predictors for the frequency and duration of shopping trips. Possibly the frequency and duration of shopping trips is a random phenomenon that defies hypothesis testing. However, I believe the problem of finding predictors was not in the hypothesis tested by the researchers, but in the manner the sample was selected and described, and in the specific questions asked of the respondents.

In writing this paper, the authors did have to function under the constraint of not being allotted enough time at this conference to detail everything in the presentation they may have accomplished in their study. Therefore, some of my comments and criticisms may be moot since the authors may have left out some material that might have sufficiently addressed the issues.

My first set of questions address the sample:

1. How representative of the rural senior citizens are the participants in the study? The authors might wish to compare the demographics of the sample with the demographics of the larger population of rural senior citizens. Using senior citizen center participants and other non-random procedures without further clarification, makes any external generalization of this study difficult.

2. Was the person who completed the survey instrument the primary or the only shopper for the household? If the respondent shared shopping duties or did the shopping with another person making the shopping decisions, we would need to know this in order to better interpret the findings.

3. Was the participant employed? About 18 percent of the men and 8 percent of the women 65 and older have part or full-time jobs [7, p. 46]. Being employed would usually put some time constraints on participants, thus affecting their shopping frequency or length of stay.

4. How typical is Crawford County of rural America? Again, if this study is to be generalizable, we need a lot more information about the statistical comparisons of Crawford, Iowa with other rural areas in the United States.

5. How far does each of the respondents live from the shopping facilities in Crawford County? Distance from the store may be a significant independent variable. One might have a greater tendency to shop more often if he/she is only two miles from a market than if he/she is 50 miles away.

6. What are the shopping facilities in Crawford, Iowa? Is there a variety of options for grocery and non-grocery shopping? Did the respondents shop in more than one store on a typical day? Can non-grocery items be purchased in a grocery market and vice versa? Are there mom and pop stores and large chains? Many of the items in this instrument ask the respondents to compare the two. All of these options may substantially influence the shopping behavior of the elderly, yet they were not controlled for in the analysis.

7. What is the per capita income for each of the respondents? The authors have asked family income but did not take into account household and/or family size. There can be a substantive difference in financial well being between a family of one that has an annual income of $15,000 and a family of three with the same income. The lack of this information weakens the use of income as an independent variable.

Meiners and Heltsley may have had a more revealing study had they provided the data that addresses some of these sampling questions. Many of these variables and/or the interaction among them may have been a significant predictor of shopping behavior. But hindsight is always better than foresight and we all know the difficulties of obtaining a credible response when we ask respondents too many questions. The writers did well in getting the large response rate that they did.

My primary concern with this paper is in the psychographics area. The authors used Stone's typology to determine the psychographic variables. The Likert type items used by the authors in this paper were selected from typical responses that the respondents in Stone's study gave to the general question of "Why would you rather do business with local independent merchants (or large chain stores, depending on a prior choice)?" [6, p. 37]. By using this procedure of taking "typical responses" to a general question and writing them with little change into Likert statements in a scale, Meiners and Heltsley may have included some inappropriate items in their typology instrument.

For example, it is difficult for me to see how the item in the economic category, "Clerks in small stores are too nosey" is an orientation that "Emphasizes the challenge of finding the best price, quality, and variety". Also in the same category is the item "Department stores have a wider selection of goods". This is essentially true by definition and the item could, along with the item "Department stores have more reasonable prices", be agreed with

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strongly by either a person who was into finding the best price, etc. or by one who was not. Similar criticism could be made in the personalizer, ethical, and apathetic categories.

Although the authors of the paper used Cronbach's alpha to test for reliability of their sets of questions in each typological category, the lack of validity testing brings the scales into question. Stone did not suggest these items per se for use as Likert statements in a scale [6, p. 42]. Not only would I suggest that these items be reworded and validated, but I would also suggest they be made into a scale by using factor analysis techniques [1, p. 60, 10; p. 24-25]. Selecting and grouping the items as the authors did is suspect unless one knows how they load in a factor analysis. There are various sources such as Darden and Ashton [4] and Wells [8] that may be of help to the authors in revising the scale.

An alternate suggestion is to use one or more of the typologies suggested by Wells and Tigert [8]. These typologies are not totally parallel with those developed by Stone, but they have been subjected to appropriate methodological procedures to be used as scales. Also the topic of these typologies may be more appro- priate in predicting shopping behavior of the elderly. These scales include: Financial optimist, price conscious, homebody, community minded, credit user, self confident, information seeker, and new brand trier.

If the authors are to continue with this area of study, considering the limitation of a mailed survey, they may wish to use observational techniques combined with interview methodology. It would be relatively easy to observe elderly persons shopping in a market. One could determine not only their length of stay in a market but also who accompanied them, what they purchased and the mode of transportation they used to get there. A short interview at the end of the shopping would gather additional demographic data. If it were deemed too inconvenient for the elderly shoppers to be interviewed, they could be given a questionnaire to be completed and returned later to the researchers.

For more precise analysis the authors might want to divide the elderly into more than one group. Researchers have usually found that the characteristics of the population between 55 and 65 are often vastly different than those who are 75 and older [2, p. 23; 3; 5, p. 13]. Therefore, suggestions for social services for one group may not be appropriate for another age group of elderly.

Another suggestion for future study for the authors is that they might consider comparing the shopping habits of urban elderly with those of rural elderly, given certain demographic variables as controls. Although the authors suggest using the results of their study as additional evidence regarding the importance of the location of basic service, evidence from a rural study may not be applicable to urban senior citizens.

The authors have embarked on an interesting area of study. The elderly proportion of our population is growing rapidly, thus making their problems more prominent to our society. Much needs to be learned about shopping habits of the elderly so that community service agencies and retailers alike can facilitate the marketing behavior of senior citizens.

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A DISCUSSION OF "THE RURAL ELDERLY: SHOPPING PATTERNS AND ATTITUDES"

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The study reported in the "The Rural Elderly: Shopping Patterns and Attitudes" probes some aspects of shopping behavior among the rural elderly. As is often the case, the study as presented appears to have both strengths and weaknesses.

Strengths

Perhaps the major strength of this study lies in its justification. Clearly there are sound theoretical and policy reasons for studying shopping behavior among the rural elderly. The large shopping literature, with its marketing orientation, has paid little attention to the rural elderly. As the authors note, research in the family economics and gerontological literature on the use of basic services by the elderly has not progressed beyond the identification of "who uses what services when." Thus, a second major strength of this study is that it attempts to explain variation in the frequency and duration of shopping trips made by the rural elderly.

It is especially laudatory that one of the principal explanatory variables employed is shopping orientations. The attempt to construct and use a scale based on a modified version of Stone's (5) typology of shopping orientations is a third major strength. Stone's research-generated typology has been underutilized in generating explanations for shopping behaviors. While the typology has been widely used in consumer behavior textbooks and replication studies have been done (e.g., 2), its explanatory power, until this study, has not been tapped. The addition of the "timeuser" orientation is a worthwhile modification, despite the fact that it is not research generated.

Weaknesses

The major weakness in the study is that the findings, as presented, have little theoretical or policy interest. Because of conceptual ambiguities and statistical problems (discussed below), the only findings that can be reported with confidence are that the vast majority of respondents report visiting the grocery store by private automobile once or twice weekly for about one half hour. These unsurprising findings are consistent with prior research and are strikingly similar to finding on grocery shopping across demographic groups. The lack of a larger body of reportable findings can be traced to weaknesses in three aspects of the study: (a) conceptualization and measurement, (b) research design, and (c) data analysis. Each of these aspects are now discussed in turn.

Conceptualization and Measurement

The survey instrument asked respondents to indicate how often they visit the grocery store and how often they go shopping for items other than groceries. These questions may have appeared to be ambiguous to some respondents. The first question asks for reports of any visit, but may appear to some respondents (especially in the context of the second question) to be asking for major grocery shopping trips. The distinction between "going shopping" (with its connotation of purchasing several products or visiting several stores) and merely visiting a store (to buy only an item or two) may be blurred in this question. Further, respondents who interpret the first question to be an inquiry regarding grocery shopping trips may underreport the number of actual visits they make to the grocery store for non-grocery reasons. As Stoneall (6) points out, grocery stores in small rural communities frequently provide many goods and services beyond groceries. Thus, some visitors to the rural grocery store may, instead of buying groceries, have their knives sharpened, borrow use of the walk-in cooler, buy a cup of coffee, cash a check, peruse the sign board, or just "hang out" (6).

Additional questions asked respondents to estimate how long they stayed. The shopping duration measures apparently tapped only in-store time. Time spent preparing for the trip (e.g., developing a grocery list), traveling to and from the store(s), and unloading/storing items purchased was not included in this study. Counting such time may add substantially to the total amount of time involved in shopping. It may also increase variation in reported shopping time since, among other reasons, some rural residents live a substantial distance from retail outlets. Conceptually, the notion of a more inclusive shopping time has great appeal -- it is the psychologically- as well as the physically-relevant time from the shopper's perspective.

The study seeks to explain variation in shopping behavior through modified "shopping orientations" borrowed from Stone (5). The scales used to measure shopping orientations vary in reliability. Cronbach's alphas are adequate for the Personalizer and Timeuser scales, but are low for the Economic, Ethical, and Apathetic scales. It is interesting to note that the two scales with adequate reliability are those with median scores most divergent from the scale midpoint. Perhaps the scores in the Economic, Ethical, and Apathetic scales are "regressing to the mean" because of their low reliability levels. The Economic scale also appears to have face validity problems. For example, the scale item "Clerks

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in small stores are too nosy" appears not to tap the concept of an "economic" shopping orientation. These scales should be carefully examined to insure that they attain adequate levels of validity and reliability.

In addition, the authors may wish to consider modifying Stone's shopping orientations even further. Stoneall's (6) rural grocery shoppers displayed Stone's orientations (Economic, Personalizer, Ethical, and Apathetic) as well as others: Convenience (similar to the authors' Timeuser), Habit, Specialties, and Variety Orientations. Developing scales to measure these orientations will probably imply modifying some of the current scales. This process has two possible benefits. First, it might improve the reliability/validity of the present scales. Second, more numerous and more focused shopping orientations might be more likely to be statistically related to the shopping frequency and duration variables. The finding that most shoppers reported spending about one half hour in the store is, as the authors note, partly an artifact of the construction of the answer categories. The authors suggest that future research measure shopping duration in minutes rather than hours. Future researchers in this area should also consider using in-store observational techniques to measure shopping duration, rather than relying on respondent's self reports at a time place removed from the actual shopping experience. Such a procedure may remove one of the problems facing these authors in their statistical analysis: lack of variation in the dependent variable.

Finally, and indirectly related to conceptualization, a comment about the lack of hypotheses. Clearly the authors had some propositions in mind when the study was conceptualized and designed. Informal relationships between variables are stated in various places in the paper. Statistical hypothesis-testing procedures were used. It would be a simple matter for the authors to include a statement of hypotheses in the paper in its traditional place following the introduction and literature review. For example, the authors informally propose the following broad relationship: shopping orientation will explain variation in frequency and duration of shopping trips. In place of this general statement, a series of hypotheses might indicate which particular shopping orientations are predicted to be associated with more or less frequent trips and longer or shorter durations. Further, these hypotheses and their associated rationales would provide the reader with an opportunity to assess them on formal, epistemic, and substantive criteria.

Research Design

The primary difficulty in the design of the study is the nature of the sample. First, use of a mailed questionnaire concerning shopping behaviors places respondents in the position of answering questions at a time and place removed from those behaviors. This data gathering technique may produce lower quality data than might otherwise be obtained, e.g., some respondents may not accurately recall shopping duration. Second, the questionnaire may have been completed by many respondents who do not have primary shopping responsibility in their household. Both of these difficulties could be reduced substantially through the use of in-store interviews. Shoppers are the universe from which a sample is to be drawn and, as mentioned before, the duration of their shopping visit can quite easily be measured.

Data Analysis

There are two problems with the data analysis as presented in the paper. One concerns the choice of a statisical procedure; the other concerns the interpretation of a statistical result.

The oneway analyses of variance reported in Tables 4 and 5 are inappropriate. The means reported in the analysis appear to have been calculated from the ordinal level shopping frequency data, e.g., 1 = once a day, 2 = twice a week, etc. (see Table 3) and therefore are more appropriately labeled "rank-means." The analysis of variance procedure assumes an interval level dependent variable. The analysis of variance procedure also assumes equal variances across categories of the independent variable. As Tables 4 and 5 show, the variances in these categories are not equal. While the analysis of variance procedure is relatively robust against violation of assumptions (3), these two violations preclude its use on these data. Alternative nonparametric procedures are readily available, e.g., the Chi-Square one-sample test or the Kolmogorov-Smirnov one-sample test (4).

The authors report that shopping orientations explained very little of the variance in frequency or duration of grocery shopping trips. As is frequently the case, these findings are then interpreted as indicating that shopping orientations do not affect frequency or duration of grocery shopping. Such a conclusion, however, may be premature. As Abelson (1) recently pointed out, "... it is quite possible that small variance contribution of independent variables in single-shot studies grossly understate the variance contribution in the long run (p. 133, emphasis added). Abelson argues persuasively that, in many cases, it is the cumulative effect of an independent variable over time that is relevant in the real world. Clearly shopping and shopping orientations are likely candidates for such cumulative effects. The message is clear: we cannot necessarily dismiss the low variance contributions of shopping orientations --- this variable is deserving of additional close research attention.

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THE GRAY PANTHERS AND ECONOMIC ISSUES

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Abstract

Economics and Gray Panthers are closely interrelated because of the need for sufficient funding to meet basic needs for food, shelter and health care for the elders. The Gray Panthers is a social action group that directs its efforts toward advocating what must be done to meet these basic needs of elders and other minorities and poverty groups in our nation, and educating our leaders. Some try to make elders the scapegoats for our devastating national debt. The "Yuppies" are challenging equality in distribution of federal funding. What is the real situation?

The Financial Situation of the Elders in Our Society

The first thing to understand is the tremendous increase in the number of aging persons. They doubled from 1900 to 1930 and then doubled again by 1950, but that was only the beginning. Longevity has increased the proportion of elderly in our society on a yearly basis. It has now jumped to 11% to 12% of the population; by 2035 it is estimated to be 18 to 23%. The problem is further complicated by the mounting number of very old--those over 75. This group is increasing from 38% to 47%. They are the high-risk group, requiring many services. This increase in aged persons, even if there is no increase in services, will put tremendous pressure on our future federal budgets. Many overlook the impact of this. We need to face the fact that the share of the federal budget spent on the aged jumped from 2% in 1940 to 25% in 1982 (9,p.309-313).

Another thing that needs to be looked at squarely is the actual financial situation of the aging today. According to Schulz, the elderly are like the rest of the population, "some very rich, lots with adequate income, lots more with very modest incomes (often near poverty) and a significant minority still destitute. This is very different from the past, when most were destitute"(7, p.17). Nevertheless, the decreased number of destitute does not decrease the acuteness of their need. For example, most older couples live alone and one-fourth have less than $10,000 a year. Most unrelated aged individuals also live alone, and the yearly income of three-fourths of them is below $10,000.

Another common indication of the poverty of the aged is the percentage whose income is below the poverty index. It shows great variation for different ethnic groups. In 1981 the percentage of all aged below the poverty line was 15, while the rate was 13 for white aged but 37 for non-white and 39 for blacks (10). However, Schulz warns that this measure of poverty is subject to substantial reporting errors. It is based on the current Population Survey and it has been found that often the respondents do not know the correct answers, do not remember correctly, or give false information out of anger or fear of government retribution (7, p. 19). Schulz considers the figures of those depending on public assistance more reliable. According to this data, 30% of blacks depend on public assistance while only 7% of whites are in this category. Schulz cautions further against generalizations regarding any sub-group, reminding us that the real variation is because of individual situations, such as whether they are retired or not-retired, newly retired or long-time retired, fairly healthy or suffering chronic health problems, or even institutionalized. A recent Arizona long-term care study illustrates the impact of long-term health problems on numbers below the poverty line. Sixty percent of the approximately 2,000 long-term care patients in this nursing home study had been private patients until they used up all their savings (6). Institutionalization can quickly push even middle income elderly below the poverty level.

The impact of inflation also is important. Poverty level elderly, as well as those on the borderline, received no help from Reagan's reduction in taxes, and no increase in the value of most of their assets since these were largely checking accounts, savings accounts or bonds which did not inflate. Social Security had its COLA and SSI also gradually increased with inflation, but there were almost no increases in state or county pensions or public assistance.

Economic Resources Available to Elders

The economic resources available to elders were traditionally identified by economists as Social Security, private pensions and individual savings. According to Schulz, individual savings are so negligible they are no longer considered. The 3-legged support of elders is now identified as Social Security, OASDHI (Old Age Survivors Disability Hospital Insurance), private pensions and government employee pensions (7, p. 172-173).

Social Security and SSI are the only incomes of elders below the poverty line or borderline. The percent varies with changes in the national economy, and changes within the Social Security system, but it usually ranges from 40% to 50% of the beneficiaries.

The Social Security system started as a simple retirement insurance for workers, but over the years it has been extended and expanded. The system was barely started when survivors were added as additional beneficiaries. In 1956 the

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disabled were added--at first only those workers 50 or older, but by 1960 it included covered workers of any age. The next big increase was in 1965 with the addition of the Medicare and Medicaid systems. Part A provides hospital insurance, funded by adding a percent increase to the payroll deduction tax for Social Security. Part B is a voluntary program which provides for payment of 80% of doctors' bills at the "usual and reasonable rate" specified by Medicare, but it does not start until the patient has paid out of his own pocket the $75 deductible. Smaller changes were made in the total Social Security system over the years, such as providing support for widows with minor children, and retirement at reduced rates at age 62--first for widows and later covering all women and men. Benefits for dependent children were extended from 18 to 22 if the children were in school. The current average payment of retired workers is $461.37 a month (8, p. 4). We need to remember that this is the only income of some elderly.

In the original Social Security Act, four grant-in-aid systems were established to match state funds providing for needy elderly not eligible for Social Security. They covered the needy elderly, needy blind, needy permanently and totally disabled, and Aid to (needy) dependent children (one-parent families). The proportion of federal support depended on the average income of the state's population, but a state contribution was required of all. In 1974 the first three were combined into the Supplemental Security Income program (SSI), which then became a nationally administered Social Security Administration program. The current maximum monthly payments of SSI are $325 per individual and $488 per family (1). The ADC program became the AFDC program. Average monthly payments in Arizona are $110 per recipient and $320 per family. It is a state-administered program based on proof of need.

Foods Stamps and Surplus Commodities are other national programs to help prevent actual starvation. Surplus Commodities was developed first by the Agriculture Department to help farmers dispose of surplus farm products, and also to help the poor. Administration was difficult, opposed by some because it stigmatized the poor who had to go to the trucks to pick up the commodities. Food Stamps was developed to replace the commodities program. It permitted people to go to stores like other people and pick out food that was pleasing to them individually. Some areas continued the Commodities, preferring them to food stamps. Other areas continued both systems. In the spring of 1985 Senator Helms opposed continuation of both. There was so much opposition to his proposal that action on it has been delayed. The average elderly person receiving food stamps in Arizona in March 1985 was receiving $33.06 per month.

Pensions are a different support system for a significant number of elders. Government pensions started early in the century, but private pensions did not develop rapidly until the 40s and 50s. There still is little coverage for workers in small businesses, non-union workers, females, part-time workers, lower paid workers, and those working in trade, service and manufacturing industries. In the 60s and early 70s there was much concern about the many pension systems which actually paid only a few workers. Studies revealed that many businesses closed before many of the workers reached retirement age and there was no transfer from one company to another. Some other businesses used devious methods to avoid paying pensions, such as encouraging lump sum payments instead, or even firing workers shortly before retirement on the excuse of "inefficiency". In 1974 Congress passed the Employee Retirement Income Security Act to set up minimum standards, financial safeguards, and disclosure requirements. There are still concerns related to adequacy of coverage, how to reduce risk of pension loss, and the usual lack of any provision for inflation.

On the other hand, there are basic elements of stability and long-term continuity in the private pension systems that Schulz believes should be encouraged, such as the collective financing system (preferable to individual funding of retirement plans). Furthermore, he believes that they strengthen the idea of retirement benefits as a right. They also set up a "forced saving" system necessary for many people, and tie benefits to pre-retirement earnings, which makes such a system different from a welfare program. Finally, pensions also broaden the involvement of a larger segment of the population in retirement planning (7, pp. 170-174).

In general, government pensions are more liberal than private pensions and more likely to have some provision for inflation. On the other hand, there is increasing concern regarding the financing of government pensions, since most governments are under severe pressure at present to meet their budgets, and pensions are often one of the lowest priorities.

Gray Panther Action in Support of Economic Resources

Gray Panthers is an advocacy group, which uses communications and educational means to support its community efforts. The economic resources of elders have been threatened since the beginning of the present national administration. This concerns the Gray Panthers.

The first crisis occurred in March 1981 (5), almost immediately after President Reagan took office. The following reductions were presented as part of the 1982 budget:

1. Elimination of minimum benefit of $122 for all newly eligible retired and disabled beneficiaries.
2. Phase-out of benefits to post-secondary student beneficiaries (18 to 22 years).
3. Placement of a cap of 150% of pre-disability wages on the total amount any family could receive from public disability benefits.
4. Discontinuation of Vocational Rehabilitation financed from the Disability Trust Fund.
5. Restriction of lump sum death benefits to only cases where there is a surviving spouse or children currently entitled to monthly bene-

fits.
6. Reduction in benefit computations to the lower dime in each step, and rounded to the lower dollar for final amount of benefits.
7. Retention of Social Security benefits until the beneficiary has been eligible a whole month.

The elders in the community were shocked by this complete reversal of what had been promised during the campaign, but no concerted protest was made. Consequently all the cuts were enacted except that Congress changed the elimination of minimum benefits to new applicants only.

On May 13 the president asked for still more drastic cuts in Social Security. The first proposed cut was a change in reduction in benefits for early retirement. It was recommended that cuts be changed from 80% of the regular benefit to 55%. In addition, early retirees were not to receive any children's benefits. The cuts did not end there. A delay in cost of living increase was requested from June to September 1982 and an adjustment in the cost of living index to offset the 1972 automatic cost of living adjustent in benefits. This would have reduced all benefits 4% to 9% by 1987 (4).

The Study Group on Social Security led opposition to these drastic cuts, and Gray Panthers as well as other groups started a concerted campaign against them. The proposal was withdrawn, but soon the administration began a scare campaign--that Social Security was going bankrupt and would be gone before the young people of that time became eligible for benefits. The elders felt their props were being knocked out from under them and became terrified. Gray Panthers began working with their congressmen, encouraged and supported by continuous suggestions and documents from the national Gray Panther office, to help the grassroots groups put up a fight against any further threat to their security. In our local community the convener of the Gray Panthers developed a Social Security Fact Sheet and took it to about 20 community meetings held by our new congressman in the district. She became accepted by this new legislator as an authority on the subject and a supporter of his efforts to communicate with his constituents. When the president appointed a Social Security Commission to develop necessary changes "to save the system", our national Gray Panther leader, Maggie Kuhn, attended most of the sessions in Washington and was thrown out of meetings when she insisted on voicing opposition to some of their decisions. The result of the Commission recommendations was a composite not entirely satisfactory to any group, but it was not a total defeat as it might have been without grassroots insistence on preservation of the system.

The lessons learned from these experiences bolstered groups working with elders when the present congress was pushed to use the Social Security COLA as the bargaining item in efforts to cut the military budget and reduce the national debt. This time the Villers Foundation funded a drive to fight the cut in COLA. Gray Panthers appointed one of their leaders in Washington to head a national Gray Panther drive. The National Council of Senior Citizens held their annual meeting in Washington and put on an extensive lobbying campaign with Congress. SOS (Save Our Security) and AARP also participated.

The New Gray Panther Approach

Gray Panthers gradually became aware that part of the problem in trying to maintain an adequate economic base for elders was the mounting discrimination against the group. At the 1985 spring national Steering Committee meeting, the leaders voted to place "discrimination against the elderly" as their number one priority. A manual was developed by the "Discrimination Against Aging Task Force" and a grant was obtained from the Villers Foundation to support a training program for Gray Panther leaders across the country (11). We met in Philadelphia September 4-9, 1985, to start this training program. The new approach stresses increased awareness that elders, and especially Gray Panthers, must become more active in the total community, and not center their attention so much on the needs of the elderly. We must recognize that it is not just the elderly who suffer from malnutrition, lack of adequate medical care and decent housing. Gray Panthers cannot afford to be boxed into a position where they are fighting their children and grandchildren for crumbs left over for the needy in our country. We must fight for all the needy! There is even talk of dropping the "Gray" from our name.

This new attitude is reinforced by recent aging policy books such as Stephen Crystal's America's Old Age Crisis and Fiscal Austerity and Aging by Carroll L. Estes, Robert Newcomer and Associates. Crystal challenges the adequacy of our present system of care for the elderly, saying it is "inequitable, inefficient and ineffective" (2, pp. 9, 177-192). A relatively small percent of the elderly receive substantial public benefits while nearly 40% receive such inadequate care that they are poor or near poor. He points out that the difference between the mean and the median income of the elderly as reported in the 1980 census is an irrefutable indication of the extent of poverty among the elderly. The mean income of aged individuals in 1980 was $7,176, while the median was $5,095. At that time the poverty level was $4,980. For those not familiar with the difference between the mean and the median: the mean is a mathematical figure which adds the incomes of all in the group and divides by the number of elderly. This type of calculation offsets the low figures by the high figures and minimizes the number in the low-income categories. On the other hand, the median gives the income level at which 50% are above and 50% are below the median level. As Crystal points out, this means that half of the elderly individuals in the country had an income under $5,095.

Estes points out that public benefits for the elderly have increased in recent years, but have not been targeted for those who need them most. She also explains that the policy for the aged in the U.S. is subsistence level for the poor, a social adequacy level for the middle income and downwardly middle income, but maintenance of high income both before and after retirement for the high income group. The new Federalism drive and

decentralization of responsibility for many human services to the state and local level makes it essential that we all address broad policy issues, many of which may not deal directly with aging issues. Furthermore, she believes that the aging need to realize that their future will be changed by the advocacy efforts of those working for broad policy change. The question is whether the advocates of the aging will join what Piven and Cloward have called "this new class war". She predicts they will be left out of the advocacy game if they do not join in the general drive for better standards for all (3, pp. 255-268).

Gray Panthers have already supported social action projects which would meet the needs of more than the elderly, so this will not be an entirely new approach. For example, the Gray Panthers have been challenging the adequacy of medical care for all persons in the United States. They have supported the Dellums Bill, which has been introduced in Congress the last three years. It would establish a National Health Service in the U.S., serving the whole population. The U.S. and South Africa are the only industrialized countries in the world without a national health service.

In April 1985, ten of our members spent a week in the Montreal area in Canada to familiarize themselves with the actual workings of the National Health System there. In the fall of 1985 another group will visit England for a clear picture of their system. The Gray Panther National Health Service Task Force is building a coalition to support a U.S. National Health Service, and the response is mounting.

Gray Panthers also have been active in the area of housing. Nationally they have fought for the rights of tenants faced with condominium conversions and repeated rent increases. They have opposed the closure of trailer courts and the eviction of long-time residents. More recently our Valley of the Sun Gray Panther network developed a shared Housing Project in which we are helping persons over 60 who have homes and live alone, to find housemates to share upkeep expenses, household tasks and also provide companionship and security. We have many older persons who live alone in their houses and want someone to come and live with them, but it is harder to find persons who want to become housemates. In the beginning we thought primarily of older persons as housemates, but not we recognize that most elderly want to stay in their own homes, so we are now looking for younger persons, students and disabled persons who need inexpensive housing and can be interested in going into the home of an older person.

Other community-wide interests the Gray Panthers currently are advocating are: solar rather than nuclear energy, restraints on mounting utility bills, expansion of public transportation, and a worldwide drive for peace. Our motto is "Age and Youth in Action". This has been attained by some Gray Panther groups, but it not universal. The need for a stronger inter-generational approach and greater emphasis on broad policy issues is apparent. The challenge has been made. Will we fly with it?

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SATISFACTION/DISSATISFACTION OF THE ELDERLY WITH CONDITIONS IN THE MARKETPLACE

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Abstract

This study examines the relationship between older persons' attitudes toward marketing, government, and consumerism and their satisfaction/dissatisfaction with conditions in the marketplace. The sample consisted of 171 persons over 60 years of age living in Des Moines, Iowa. The results of multivariate analysis indicate that the elderly desire more product information on which to base their buying decisions, want industry rather than the government, to set safety standards for consumer products, and are in favor of government intervention and regulation of marketing activities of manufacturers.

Introduction

The United States has experienced major social, economic, and demographic changes in recent decades, and these changes have had profound influences on consumer attitudes and behavior in the marketplace. Recent surveys indicate that consumers are becoming dissatisfied with inferior products and services and are voicing their dissatisfaction to sellers, manufacturers, and consumer complaint agencies. However, little research has been conducted on attitudes, behavior, and problems of older consumers in the marketplace.

This study examines the relationship between older peoples' attitudes toward marketing, government, and consumerism and their satisfaction/dissatisfaction with conditions in the marketplace.

Related Research

Limited research has been conducted on the elderly's attitudes toward marketing, government and consumerism. Most of the related research cited in this paper focuses on the elderly's behavior and the problems they face in the marketplace.

A number of studies have investigated the characteristics of consumers who are dissatisfied with conditions in the marketplace. Hustad and Pressemier (7) found that consumers who felt negatively toward business tended to be young intellectual women, with high income and high socioeconomic status. These consumers were concerned about product safety and misleading advertising and favored governmental intervention and regulation in the marketplace. Coulson (4) on the other hand, reported that those concerned with consumerism and who had negative attitudes toward business practices were older, poorer, less educated, and less able to cope with the world. However, Liefeld, Edgecombe, and White (9) indicated that the average consumer complainer was middle-aged, well-educated, affluent, managerial-professional man or woman.

In examining shopping behavior of older consumers, Mason and Smith (10) reported that most of the respondents in their study preferred shopping in the morning and in the central business district which was within walking distance from their homes. Heltsley (6) indicated that more than half of the elderly in her sample shopped at stores within five blocks of their homes, and 74 percent of the respondents said that they went to the grocery store by themselves or with their spouses. Mason and Bearden (11) stated that slightly more than half of the older adults in their study shopped without specific plans and that 90 percent of the respondents shopped at least once a week.

Older consumers use a variety of sources to get information about products and services. Schiffman (13) stated that the elderly often rely on the extended family as an informal source of product information. However, Mason and Smith (10) indicated that the respondents in their study relied on physical search as the primary source of product information when making a purchase for all items except food and beverages. More than 75 percent of the respondents in their sample relied on the newspaper as their primary source of information for food purchases. Shutz, Baird, and Hawkes (14) found that personal judgment, experience, and advice of family and friends were by far the most frequently relied on sources of information among the elderly they surveyed. However, Friedman and Wasserman (5) pointed out that the respondents in their study tended to cope with decision demands in the marketplace by looking inward to their own consumer knowledge and experience, rather than outward to the knowledge and experience of others.

Studies indicate that the elderly face many problems in the marketplace. According to Waddell (15), inflation forces older consumers to cut back on an already limited style of life. Shutz, Baird, and Hawkes (14) stated that the greatest problem area reported in their survey of the elderly had to do with the high cost of living. Atunes and Cook (2) pointed out that transportation between the homes of the elderly and retail stores is often poor. Mason and Bearden (11) indicated that older consumers face the problem of reading small print on food labels.

In three research studies conducted in the 1980s, Ziethaml and Fuerst (16) found that the elderly used unit price information less than other subjects, and their finding suggests that educational programs emphasizing awareness and usage of this type of price information may be necessary among the elderly. Lambert (8) stated that many elderly consumers lack adequate knowledge about the financial risks associated with hospitalization and the protection afforded by medicare and were

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ill-prepared to assess their medigap protection needs and to choose among alternative insurance policies. Burton and Hennon (3) reported that the elderly want information regarding ways of cutting their expenditures and of improving their marketplace skills.

This study examines the relationship between older consumers attitudes toward marketing, government, and consumerism and their satisfaction/dissatisfaction in the marketplace.

Procedure

Source of Data

The Statistical Laboratory at Iowa State University drew a random sample of 1207 households from the Des Moines Iowa telephone directory and a mail-out questionnaire was sent to the households. Households who did not respond within two weeks were contacted by phone. Fifteen percent of the households could not be reached and an additional 8 percent refused to complete the questionnaire. Of the remainder, households were eliminated from the sample if the respondent was not a female age 60 or over. The final sample consisted of 171 respondents. The questionnaire contained 30 statements concerned with attitudes toward marketing, government, and consumerism. Additional data regarding satisfaction/dissatisfaction in the marketplace, awareness of consumer protection agencies and socioeconomic and demographic characteristics relating to age, education, income and occupation were also obtained.

Dependent Variable

The dependent variables, satisfaction/dissatisfaction in the marketplace was the subject's response to the following question: How satisfied are you with conditions in the marketplace? The response categories consisted of "Very Dissatisfied," "Dissatisfied," "Satisfied," and "Very Satisfied," coded 1 to 4.

Independent Variables

The 30 statements concerning consumer attitudes were divided into five categories and each category included six variables. The categories were concerned with product information, product safety, advertising, government protection, and consumerism. The response measure used was a five-point Likert scale ranging from strongly agree to strongly disagree. A strongly agree response received 5 points, while a strongly disagree response received one point.

Method of Analysis

Multivariate regression was used to analyze the data. Variables that had a t statistic of more than 1.645 in the preliminary regressions were included in the final regression. Beta coefficients were used to determine the relative importance of each independent variable in the regression. The coefficient of multiple determination (R^2) was used to measure the proportion of the original variance in the dependent variable explained by the independent variables.

Results and Discussion

Preliminary Regression--Product Information

The six statements relating to product information can be seen in Table 1. Consumers were concerned with the availability and usefulness of product information.

The statement that "consumers have enough information on which to base their buying decisions" had a t statistic of more than 1.645 in the preliminary regression and was included in the final regression. This variable was significant at the .01 level in the preliminary regression.

TABLE 1. Preliminary Regression of Satisfaction/Dissatisfaction in the Marketplace with Product Information

Statement	Beta value	t value	Standard Deviation
The government should test competing brands of products and make the results of these tests available to consumers.	.01	.16	.07
Business should be required to supply more information to consumers.	.11	.95	.11
Products should carry an information tag which would give information about performance, materials, care and characteristics.	.11	.79	.14
Consumers have enough information on which to base their buying decisions.	-.28	-3.57**	.08
Advertisements are reliable sources of information about the performance of products.	-.05	-.59	.08
It is difficult for a consumer to get sufficient information about products before making a purchase.	.03	.33	.08

Total sample N = 171
**Significant at the .01 level

Preliminary Regression--Product Safety

The six statements concerning product safety are shown in Table 2. The statement that "industry, rather than government, should establish safety standards for consumer products" and the statement that "businessmen are very concerned with designing and producing safe products" met the criteria for inclusion in the final regression. Both variables were significant at the .05 level or less.

Preliminary Regression--Advertising

The efforts of government and business to improve the public's image of advertising practices had little influence on the respondents in this study. The elderly tended to believe that advertisements were not typically truthful and accurate. The six statements relating to advertising can be seen in Table 3.

The statement that "many advertisers make false claims about their products" had a t statistic of more than 1.645 in the preliminary regression and was included in the final regression. This

variable was significant at the .05 level.

TABLE 2. Preliminary Regression of Satisfaction/ Dissatisfaction in the Marketplace with Product Safety.

Statement	Beta value	t value	Standard Deviation
Business will correct safety defects of products only if they are forced to.	.11	1.41	.08
Industry, rather than government should establish safety standards for consumer products.	.12	1.97*	.06
Most accidents that occur involving products are caused by the carelessness of consumers.	.11	1.37	.08
Businessmen are very concerned with designing and producing safe products.	-.18	-2.13*	.08
Manufacturers should be forced to prove that a product is safe before it can be sold to consumers.	.12	1.12	.11
The lack of product safety has been exaggerated.	-.02	-.20	.08

Total sample N = 171
*Significant at the .05 level

TABLE 3. Preliminary Regression of Satisfaction/ Dissatisfaction in the Marketplace with Advertising.

Statement	Beta value	t value	Standard Deviation
Many advertisers make false claims about their products.	-.21	-1.98*	.11
The government should be stricter in policing advertising.	.07	.89	.08
Advertisements should provide adequate information about product quality.	-.01	-.05	.13
Companies should prove in advance any claims which they plan to use in their advertisements.	-.05	-.43	.11
If a company uses false advertising, it should be forced to correct such statements in future advertising.	-.02	-.14	.12
Advertising tries to persuade consumers to buy products they don't really need.	.17	1.58	.11

Sample size N = 171
*Significant at the .05 level

Preliminary Regression--Government Protection

The majority of the respondents agreed that additional governmental regulation is needed to protect consumers in the marketplace.

The statement that "the government should exercise more responsibility for regulating the sales, and marketing activities of manufacturers met the criteria for inclusion in the final regression. This variable was significant at the .01 level (Table 4).

TABLE 4. Preliminary Regression of Satisfaction/ Dissatisfaction in the Marketplace with Government Protection.

Statement	Beta value	t value	Standard deviation
Government control over the drug industry to insure the safety of drugs is too strict.	.09	1.51	.06
There should be a professional employed in the local government to receive consumer complaints.	-.08	-1.08	.07
Laws are necessary to protect the consumer in the marketplace.	-.13	-1.06	.12
The government should set minimum standards of quality for all products sold to consumers.	-.09	-.97	.09
Present federal regulatory agencies are sufficient to protect the consumer against fraud and other unethical practices.	-.03	-.40	.08
The government should exercise more responsibility for regulating sales, and marketing activities of manufacturers.	.22	2.65**	.09

Sample size N = 171
**Significant at the .01 level

Preliminary Regression--Consumer Activism

The six statements relating to consumer activism can be seen in Table 5. The majority of the respondents believed that the public should be allowed to participate in the setting of public utility rates and policies.

The statement that "consumer organizations are meddling too much in the free enterprise system" had a t statistic of more than 1.645 in the preliminary regression and was included in the final regression.

Final Regression

Those variables found to be significant in the preliminary regressions were included in the final regression (Table 6): (1) consumers have enough information on which to base their buying decisions, (2) industry, rather than government, should establish safety standards for consumer products, (3) businessmen are very concerned with designing and producing safe products, (4) many advertisers make false claims about their products, (5) the government should exercise more

TABLE 5. Preliminary Regression of Satisfaction/Dissatisfaction in the Marketplace with Consumer Activism.

Statement	Beta value	t value	Standard deviation
Consumer organizations are meddling too much in the free enterprise system.	-.15	-2.24*	.07
The public should be allowed to become involved in the setting of public utility rates and policies.	.09	1.14	.08
A strong consumer movement is needed to balance the power of business in our society.	.05	.51	.09
Relative to other major issues, consumer problems are not very important.	.003	.04	.08
Consumerism or the consumer crusade has not been an important factor in changing business practices and procedures.	-.003	-.04	.07
The exploitation of consumers by business firms deserves more attention than it receives.	-.04	-.45	.10

Total sample N = 171
*Significant at the .05 level

responsibility for regulating sales, and marketing activities of manufacturers, and (6) consumer organizations are meddling too much in the free enterprise system.

The significant variables in the final regression were: (1) consumers have enough information on which to base their buying decisions, (2) industry, rather than government, should establish safety standards for consumer products, and (3) the government should excercise more responsibility for regulating sales, and marketing activities of manufacturers. All three variables were significant at the .05 level or less. The results are shown in Table 6.

The coefficient of multiple determination (R^2) for the sample was .19, which was significant at the .01 level. The statement that "consumers have enough information on which to base their buying decisions" was significant at the .01 level but was negatively related to satisfaction/dissatisfaction with conditions in the marketplace. This suggests that consumers who believe that they do not have enough information on which to base their decisions are less likely to be satisfied with conditions in the marketplace compared to those who do not express similar beliefs. Another interpretation is that consumers who believe that they have enough information on consumer products are apt to be efficient consumers; therefore, they are more likely to be satisfied with conditions in the marketplace. Another possibility, is that informed consumers have the knowledge to make better use of their limited resources; and, thus, they are more likely to express satisfaction with conditions in the marketplace.

TABLE 6. Final Regression of Satisfaction/Dissatisfaction in the Marketplace.

Statement	Beta value	t value	Standard deviation
Product Information			
Consumers have enough information on which to base their buying decisions.	-.22	-3.01**	.07
Product Safety			
Industry, rather than government, should establish safety standards for consumer products.	.13	2.30*	.06
Businessmen are very concerned with designing and producing safe products.	-.13	-1.66	.08
Advertising			
Many advertisers make false claims about their products.	-.09	-.92	.10
Government Protection			
The government should exercise more responsibility for regulating sales, and marketing activities of manufacturers.	.26	3.92**	.07
Consumer Activism			
Consumer organizations are meddling too much in the free enterprise system.	-.06	-1.03	.06
R^2	.19**		

Sample size = 171
*Significant at the .05 level
**Significant at the .01 level

There was a positive relationship between the respondents' attitude toward the statement that "industry, rather than government, should establish safety standards for consumer products" and their satisfaction with conditions in the marketplace. The finding indicates that consumers who are expressing a vote of confidence in business are more likely to be satisfied with conditions in the marketplace compared to those who distrust business. In other words, respondents who believe that the government, rather than industry, should establish safety standards for consumer products are less likely to be satisfied with conditions in the marketplace. Another interpretation is that respondents who trust industry more than they trust the government in establishing safety standards for consumer products are more likely to express satisfaction with conditions in the marketplace compared to those who favor government intervention. Another possibility is that consumers who are expressing a vote of confidence in the industry's ability to police itself are indicating that they distrust the federal government more than they distrust business.

The statement that "The government should exercise more responsibility for regulating sales, and marketing activities of manufacturers" was significant at the .01 level and was positively

related to satisfaction with conditions in the marketplace. This finding indicates that consumers who are in favor of government intervention and regulation of business activities are more likely to express satisfaction with conditions in the marketplace compared to those who do not express similar beliefs. This means that consumers are expressing a vote of confidence in government and are looking to the government to protect them in the marketplace by regulating the sales, and marketing activities of manufacturers. Another interpretation, is that consumers who do not favor additional government intervention and regulation of business activities are less likely to express satisfaction with conditions in the marketplace.

The respondents in this study expressed the need for more information on which to base their buying decisions. They wanted the industry, rather than the government, to establish safety standards for consumer products. However, the majority of the elderly consumers in this study were in favor of additional government regulation of sales and marketing activities of manufacturers.

Summary and Conclusions

This study was concerned with satisfaction/dissatisfaction of the elderly with conditions in the marketplace. Satisfaction/dissatisfaction in the marketplace included the subject's response to the question: How satisfied are you with conditions in the marketplace? The response categories consisted of "Very Satisfied," "Satisfied," "Dissatisfied," and "Very Dissatisfied."

Three variables were significant at the .05 level or less in the final regression. In terms of beta coefficients, and in order of relative importance, these variables were: the government should exercise more responsibility for regulating the sales and marketing activities of manufacturers, consumers have enough information on which to base their buying decisions, and the industry, rather than the government, should establish safety standards for consumer products. The findings of this study indicate that the elderly desire more product information on which to base their buying decisions, they want the industry, rather than government, to set safety standards for consumer products; however, they are in favor of government intervention and regulation of marketing activities.

The consumer movement has emphasized the responsibility of consumers to complain about their treatment in the marketplace. The findings of this study suggest that the elderly do in fact react to business and government policies and practices. Consumers are likely to voice their dissatisfaction by complaining to sellers, manufacturers, and consumer complaint agencies. Business and government can improve customer relations by developing programs to give special attention to consumer problems. Business and government can develop new ways of making themselves more accessible to consumers who are dissatisfied with conditions in the marketplace, can encourage consumers to register their complaints, and can respond to consumer complaints.

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PERSONAL COMPUTERS AND PERSONAL FINANCE: A TEAM IN TEACHING THINKING SKILLS

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Abstract

The development of a personal finance course using the personal computer as a tool to teach content and to develop thinking skills is described. Two different commercial software packages were used to teach specific content. Classifications of computer assisted instruction and suggested guidelines for selection of commercial software are discussed.

Numerous speakers and writers are challenging educators to get in step with developments in the personal computer field (10, 11, 17). A second challenge that educators face is the development of students' thinking skills (15). This paper relates the development of a pilot course using the personal computer to strengthen thinking skills of students in a personal finance class. The three main objectives of the course were (1) to teach basic techniques in using the computer with commercial software, (2) to develop thinking skills, and (3) to make personal finance material relevant to students.

Indices of available home economics related software (9) have been compiled; newsletters (18) help to keep abreast of developments but there is a natural tendency for professionals to shy away from an unfamiliar machine that has primarily been utilized for word processing. Many persons are intimidated by electronic equipment and particularly computers, which are an interactive medium that "talks back" (7). College level home economics students feel the pressure to become familiar with computer applications in their chosen field but they are hesitant to enroll in a formal computer course because many of those courses are geared to programming rather than utilization. The premises of this paper are that home economists as the "helping professionals" can and should use technology, i.e., the personal computer in the field of personal financial management and that students must be stimulated to enhance thinking skills.

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Computer Literacy

Computer usage must ensure the student of becoming computer literate. Computer literacy is the ability to use the computer to improve some skill such as balancing a checkbook (13). Computer literacy is also providing the student with knowledge about how computers directly or indirectly influence one's life. For example, we receive many forms such as bank statements that are computer generated. Are students able to read computerized information and then integrate that information into the proper responses? If so, can they give the accurate response to their bank statement? Computer literacy also means understanding how to be an effective consumer of computerized products and services such as household equipment and electronic funds transfer.

Thinking Skills

Students asked in a class assignment to calculate the amount of money needed to purchase a new car with a trade-in have borrowed more money than the new car's purchase price. This is an example of students' inability to integrate all of the available information. Most educators agree that thinking skills enable students to reason and evaluate. One basic thinking skill is that of establishing relationships among specific information, events, or conditions. Students often find it difficult to determine relationships because they do not know the possible ranges or the distinguishing clues and features (8). In the car example used earlier students must be aware of the role of the trade-in value of the present car.

In addition to establishing relationships students need to develop their ability to plan a strategy for acquiring necessary information, to be aware of their own steps of problem solving, and to evaluate their own thinking productivity. Metacognition is the term applied to this process (8). A simple exercise to illustrate metacognition is to ask students to mentally calculate the effect of a 1/2 percent interest rate increase on their savings account balance. Did they think about a one percent increase and then divide by two? Or did they work with .05? Did they have a dialogue inside the brain? Did they evaluate their decision as to how to proceed (12, 8)?

Computer Supported Instruction

Computer supported instruction can add a new dimension to the students' learning. The main

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purpose of the computer in education is to enhance thinking. Too much of what we teach deals with the teaching of isolated facts. Putting these facts together so that a student understands how they fit together in a concept may be difficult using traditional teaching methods but can be easily accomplished with a computer (4).

Computer supported instruction has been classified as 1) experiencing, 2) informing, 3) reinforcing, 4) integrating and 5) utilizing. The classifying variable is the state of the student with respect to the knowledge, skill, or attitude being acquired. Each category represents a step in the learning process with experiencing being the first step and utilizing the last (20).

Further explanation of the five classes of computer supported instruction is in order. 1) Experiential programs are used to set the cognitive or affective stage for future learning. They usually incorporate a model of a concept, subject area or attitude which the student can utilize in order to gain an intuitive understanding of the learning goal (20). For example, a question to ask students in personal finance is what happens to the buying power when the inflation rate increases by three percent? By five percent? Or decreases by one percent? 2) Informing programs are used to teach information. These programs supplement lecture or replace the text book through information on the computer screen or monitor. The most common type is programmed instruction where paragraphs of information are presented followed by questions to test the students' understanding (20). For example, in personal finance courses, capital gains could be explained on the computer's screen. Students could be asked questions based on that information. 3) Students use reinforcing programs to strengthen specific subject control. The most obvious is drill and practice (20). An example of relevance to personal finance would be problems requiring students to select the correct federal tax table or schedule in order to determine the correct tax liability. 4) Integrating programs provide an opportunity for the student to apply previous learning to new situations as well as to associate previously unconnected ideas (20). For example, the personal finance student has learned the relationship of the inflation rate to buying power and the relationship of the interest rate to the balance in the savings certificate. Integration of these concepts lead to understanding of how long a retired person could live from a savings account balance.

Selection of Computer Software

The quality of educational computing is directly related to the quality of the software used. An educator must consider four general guidelines to find the best available software (5).

1) For what purpose will the software program be used? The answer to this question is likely to include one or more of the educator's objectives.

2) Who will be using the program, in terms of grade level, age, or ability level? If the software under consideration does not meet the developmental needs of the student, it is unlikely to be a successful tool.

3) What are the objectives of the software? Are these objectives clearly evident throughout the program? Many programs fall short in this respect because they do not utilize sound principles of instructional design.

4) What knowledge or skills must a student possess in order to use the software program successfully? This is an important consideration. For example, is it necessary for the student to know vocabulary such as the balance sheet or income statement in order to use the software successfully? It is important to pay attention to details when evaluating software. Consider the instructions for usage; simple, short and concise are good characteristics to look for. The educator should use the software while following the instructions carefully in order to predict the students' questions and problems. If the software uses praise and reward as reinforcement it should be done in a nondegrading way. Consider the life expectancy of the program; what likely changes will occur to make the program out-dated? Selecting the software is a confusing task and a substantial time commitment is necessary.

Personal Finance and the Personal Computer

Information gathering and data collection reinforced the initial feeling that there are advantages in using the personal computer to teach personal finance. For example, mundane record keeping can become an interesting computer experience when the student learns to put current household information on a disk or tape rather than on slips of paper in a shoe box or dresser drawer. However, we need to be prepared for the initial slow start-up as we learn the software and transfer records from paper to a disk or tape.

Many factors go into the decision making process in regard to utilization of the personal computer in the classroom. For example, what is the availability of computers for student usage? Is the number sufficient for individual "hands-on" experience or will a team approach to usage be adapted? What kind of computing and printing equipment is available? Software is designed for specific machines and much of it is not compatible with any other machine. The printers vary in the code necessary in the description of the hardware configuration. Is

programming assistance available and if so, what is the cost of that assistance? Programming requires a high ratio of time to classroom time. Will commercial software meet the specifications of the educator?

There is a wide range of personal finance commercial software available. However, not all of the software is appropriate for a personal finance course. Some of the newer software packages designed for home use are too expensive for most educators' situations.

Commercially prepared computer software for personal financial management coming onto the market now is "user friendly" and "menu driven" in contrast to "command driven." "User friendly" means that the user is led through a menu (series of questions) and then asked to choose one of several listed options. Then the computer takes over. "Command driven," on the other hand, requires the user to know the necessary commands to work step by step through the program (14).

Commercial personal finance software has been categorized into five types: bookkeeping, financial analysis, tax planning, investments, and data bases (6). Bookkeeping packages have the capability to set up a budget, balance a checkbook, keep track of tax deductible expenses and determine net worth. Two specific programs that do these tasks are The Home Accountant Plus and the Personal Computer/Personal Finance Program. Both of these packages will create line and bar graphs in vivid colors if the monitor has color capability.

Financial analysis programs use spreadsheets which allow the user to analyze cash flow, compare the cost of various items and project retirement income. These programs are often used by professional personal financial planners. Visicalc is the pioneer in the field. Newer second and third generation spreadsheet programs such as Supercalc II, Multiplan, and Lotus 1-2-3 are more "user friendly" than Visicalc.

Programs such as Tax Planner, Professional Tax Planner and The Tax Advantage allow different income and deduction situations to determine tax liability. Then the user carries out the action with the best tax results.

For more advanced personal finance classes investment software that manages the portfolio by determining gains or losses might be appropriate. If a modem is available the student can access data bases to update current prices automatically. The data base programs are used to obtain current security prices as well as to view articles, and even see a transcript of the educational TV program Wall Street Week. The Dow Jones News Retrieval carries articles from two publications it owns, the Wall Street Journal and Barrons. Some packages such as Stockvue let the user play "what if" games with securities and options. Technical software calculates and charts averages, volume, relative strength and momentum. Fundamental software helps in stock selection by finding and making companies according to specified criteria. Other software calculates theoretical options values which can be compared to actual market value. A word of caution; none of the programs can make the student a whiz on the stock or options markets (6).

Course Development

The pilot course Analysis of Spending Patterns was elected by students who had no personal finance background; it was required for some students who had taken another personal finance course. Data collected from students on the first day of class revealed that 7 (32%) of the students had never used a personal computer, 5 (23%) had very little experience, 6 (27%) had some experience, and 4 (18%) had quite a bit of experience. When asked their feeling about using the personal computer 4 (18%) felt panicky, 7 (32%) were uncertain about their feelings and 11 (50%) were looking forward to the experience. This diverse background of the students necessitated software that permitted an individualized approach. The availability of Apple computers also guided the decision and the financial outlay for course software was important. The software that met the criteria for the initial section of the course was the Financial Cookbook (21).

The Financial Cookbook consists of 32 "recipes." The recipes have two positive aspects: (1) they encourage teaching of basic personal finance concepts, and, (2) facilitate individual student development of input data. Input requires relatively few strokes of keys and permits easy correction of data entry errors. Computing is done rapidly and the output appears on the monitor. If "garbage in garbage out" resulted the student can quickly reenter correct data. A print option is available enabling the student to have hard copy which serves as a reinforcing learning tool. Students entered variations of data in a second use of each recipe enabling them to see results of "what if."

Some of the titles are "Understanding Marginal Tax Rates," "Single Savings Deposits," "Living From An IRA," "A Loan's Interest Rate," "Variable Rate Mortgages," and "Buying a Car." The Financial Cookbook is a disk driven program--a start-up disk is not necessary.

After students achieved two print outs from different data for each recipe their assignment was to put in narrative form statements of what happened, i.e., compare and analyze the results. For example, what is the tax impact if moonlighting occurs? What is the net results from the saver's perspective if inflation is at four or ten percent? The statements were evaluated by the professor and then discussed in class after selected students shared their statements with their peers.

TABLE 1. Understanding Marginal Tax Rates[1]

Helps you find and understand your marginal tax rates

Taxable income last year	$	18756
Fed. tax paid last year	$	2232
State tax paid last year	$	424
Fed. marginal tax rate	%	18
State marginal tax rate	%	3
Do you itemize? (y/n):		NO

Actual tax % last year 14.16

----------IF YOU EARN $100 EXTRA----------

Federal tax	$	18
State tax	$	3
Less state tax deduction ..	$	0
Net taxes paid	$	21

Marginal tax rate 21.00

[1]Trost, Stan (1984). Financial Cookbook (Computer Program). San Mateo, CA: Electronic Arts.

An example of a specific recipe clarifies questions about the input and output. "Understanding the Marginal Tax Rate" (Table 1) involves last year's taxable income permitting class discussion of taxable income, personal exemptions, deductions, and marital filing status. In order to input the correct federal tax the student uses the Internal Revenue Service tax table or schedule. The correct state tax depends on the method of taxation used by the State. In this state, the state income tax is 19 percent of the federal tax. The marginal tax rate requires an understanding of tax brackets so an IRS tax schedule is used to help the student determine the correct tax bracket. The recipe allows the user to itemize deductions so discussion of deductions is timely. When taxable income is changed the student can see the effect of the tax rate.

The students create individualized situations so that no two people work with exactly the same input data. The result gives the actual percentage of taxable income paid in taxes last year. The core of the output is the effect of taxation on an additional $200 earned. This information is valuable to a household considering the net effect of additional income. When the student inputs a different income the output encourages analysis of the different results.

A second recipe compares the growth of an Individual Retirement Account deposit with a regular savings account or certificate of deposit. The input data necessitates an understanding of the amount that can be deposited, interest rates, compounding, and the marginal tax rate (a combination of the state and federal rate from the preceding recipe).

A third recipe adds to the IRA information the impact of inflation while a fourth recipe adds the tax rate at retirement. The Financial Cookbook was a tool in developing students' thinking in relation to given personal financial management situations. The students experienced metacognition as they prepared input data and as they analyzed their output.

Applying Thinking Skills to the Financial Cookbook

Gaining computer literacy skills was a viable reason for starting with The Financial Cookbook in the course, Analysis of Spending Patterns, but another reason was to assist the students in developing their thinking skills. Data become meaningful only when a student performs certain cognitive operations (3). These operations include comparing and contrasting, differentiating, generalizing, predicting, explaining, and offering alternatives. Students were encouraged to think at a higher level by responding to questions such as:

Thinking Operations	Questions
Comparing and Contrasting (using two sets of data)	In what ways are the data similar? How are they different?
	Compare your data to another student's. How are they different? Similar?
Generalizing	What happens to house payments when a variable interest rate increases?
Applying and generalizing	What happens to the number of people buying homes when the interest rate on mortgages increases?
	Suppose you have deposited $4,000 in an IRA for the past five years and suddenly you need to use $1,000. Explain what would happen if your age is 35? 65?
Differentiation	What is the difference between a tax credit and a tax deduction?

The Home Accountant

The second software selected was The Home Accountant--Educational Version (19). Positive aspects included a step-by-step student manual (even includes instructions for initializing the disk) with instructions for a tutorial on the computer (1). The program includes directions for setting up budget categories as well as expense keeping categories. The categories can be edited at will. The balance sheet and income and expense summary are other program features. The graphing capabilities include the bar graph

(budget to actual), line graph (actual expense), and the trend analysis. However, the printer must have the capability of dumping graphics if the graphs are to appear as hard copy. Checkwriting is another feature of The Home Accountant.

Through The Home Accountant--Educational Version students learned more about their options in the program menus and about computer capabilities of increasing or decreasing by specific numbers or percentages. After the tutorial has been completed at the students' own pace, application problems provided in the student manual were carried through on the computer. For example, students decided whether a specified procedure was related to assets or liabilities. Other learning through the software was the creation of their own data file on their own disk as well as the important use and care techniques of floppy disks.

The Tax Advantage

The third software planned in the pilot course was the Tax Advantage--Educational Version (16). The program takes the student through the 1040 Form and related schedules in a step by step tutorial supplemented by a student workbook or manual (2). However, the knowledge necessary to complete the 1040 must be provided in the classroom with teacher/student interaction. Following completion of the tutorial the student progresses to problems where understanding (or lack of) is demonstrated. Printing capabilities permit hard copy of the 1040 and necessary schedules. The Tax Advantage was not utilized because the 1984 version was not available from the publisher.

Teaching Analysis By Students

About two-thirds through the semester students were asked to identify strengths and problems of the course. Comments from the students included:

-- The course content will help us in the working world. It also relates to real-life situations. (Shows how it will be applied.)

-- I've learned a great deal from this course. It's been a great experience to work on the computer. Other areas that we talked about have been very interesting! What I like most about the class is that it can be applied to everyday life.

-- I feel I have gained valuable information from this class. I really enjoyed the independent computer work because the first part of this work gave me a chance to see various comparisons of the things that affect what your money will buy. The second half of the computer work, The Home Accountant, is information that everyone will be able to apply in one way or another to their lives. So far I have really enjoyed and benefited from this class.

-- I think if students try at all to learn on their own in this class it can be quite valuable. We learn pertinent facts about taxes, economics, etc., as well as how to use one type of computer.

-- I rated this course good because it taught me more about the real world and becoming aware of what I would have to work for to get out of it what I wanted. I also liked to learn to work on the computer because I was unfamiliar with it and had wanted to learn how to use one.

-- I rated this course as being good. When I first came into this class at the beginning of the semester and heard we would be working with computers I was terrified. Now I think I have a better understanding of how they work and I am not intimidated by the mere mention of the word "computer."

Typical comments related to problems were:

-- The course goes too slow and needs to be made more relevant to today's problems. The computer programs were not well written and I don't feel they would be helpful in the real world.

-- The content is interesting and important but working on the computer has been frustrating and taken part of the learning of content away. We seem to be learning more how to work the computer. I would like to see another approach taken to the structure of this course.

-- I feel that there is confusion in the computer room. I sometimes don't know why I'm doing what I am.

Generally the student feedback to the pilot course was positive. Students helped to identify specific problem areas which will be addressed in the future. One of these areas is more detailed deadlines rather than emphasizing student pacing.

At the end of the course students were asked to designate their feelings about using the personal computer. Sixty-three percent look forward to using the personal computer, 21% had no reaction, and 16% were still uncertain about their feelings. (During the first class 50% were looking forward to the experience, 32% were uncertain and 18% felt panicky.) The change in percentages indicate that the anxiety level about using the personal computer decreased during the semester.

Students' unsolicited comments written on their assignments indicated that they learned to think about subject matter in a different way. For example, one student said, "I never realized how much one-half percent in the mortgage rate affected my monthly payment." Another person said, "Now I understand why the government is trying to keep inflation down."

Implications

The home economist educator with little or no previous knowledge of the personal computer can add a new dimension to a personal finance course through the use of commercially available software. Two of the packages discussed in this paper are relatively "ageless," they can be used in successive semesters. The third package relating to federal income taxes becomes out-dated with every tax change. However, this problem is not unique to software; textbooks become outdated for the same reason. A disadvantage of using the commercial software is the initial expense. The expense is dependent on the number of copies needed and the arrangements that can be made for the use of computers. It would be desirable for students to purchase their own program disks.

A particularly vague problem area is the extent of coverage provided to the commercial software company by copyright laws. How many original software disks must be purchased to meet the legal copyright limitations? There may be restrictions on booting up more than one computer at one time with only one program disk. The solution to the problem in the course being described was to purchase multiple copies of the software disks and to make the copies available to students through a check out system. In this experimental situation four copies of the Financial Cookbook and ten copies of The Home Accountant were purchased. The latter example is available at a discount for educational purposes.

There is personal satisfaction from the stimulation of a successful new teaching technique. Students are not the only ones learning; the educator also learns. In the case of the adoption of the personal computer as a teaching tool the rewards are substantial as students comment about the "fun" they are having. There are also frustrations as is the case with most unfamiliar situations. The home economist who achieves success with commercial software realizes the limits of using someone else's ideas and is then challenged to learn some programming as a way of better communication with a programmer or as a way of stimulating personal growth in the intricacies of programming.

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CONSUMER EDUCATION KNOWLEDGE OF PROSPECTIVE TEACHERS AT TWO MANITOBA UNIVERSITIES

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Abstract

The purpose of the study was to examine the factors affecting the knowledge of prospective teachers in consumer studies, as measured by a test of consumer knowledge. The data were collected from 187 prospective teachers in their final year of study at both Brandon University and the University of Manitoba. Chi-square analysis revealed that prospective teachers who were older, had more experience in consumer matters, had taken consumer related coursework and who felt competent to teach in this area scored significantly higher on the test of consumer knowledge than comparative groups.

INTRODUCTION

As society in general and the marketplace in particular have become more complex, the need for consumers to be well informed has increased dramatically. The public school system has been considered an appropriate arena for transmission of this information in the form of consumer education courses. Administrators have acknowledged the significance of consumer education as a subject that provides the seeds for teaching students the life skills they require to live and operate successfully in our complex society. The result has been that the status of consumer education has risen to a level that warrants its integration into the school system curriculum.

In a Manitoba Department of Education publication, consumer education is defined as "the process of developing skills and understandings in the considered use of personal and environmental resources to responsibly meet human need and wants", (Idea Bank, K to 6, 1977, p.1). This definition stresses three elements with which consumer education should equip pupils: 1) knowledge, 2) values, and 3) skills in the face of making consumer decisions.

There are several major factors which have influenced the effectiveness of consumer education programs in the schools. One of these is that consumer education as a subject area has not been in existence long enough for all the problems to be identified and improved. Secondly, most educators have had very little, if any, training or preparation for teaching consumer education related subjects. There is considerable reluctance among educators to participate in teaching consumer education, possibly because the educators are ill-prepared in the first place. In Manitoba's case, for instance, the curriculum coordinator in the Department of Education stated that teachers designated to teach consumer education feel ineffective and incapable to teach these courses (Parasiuk, 1983).

Using Benjamin S. Bloom's Taxonomy of Educational Objectives, Handbook I: The Cognitive Domain (1956), it becomes possible to understand what may be the cause for teacher's feelings of ineffectiveness and incapability to teach consumer education. Bloom identifies a hierarchy of learning that takes place in the cognitive domain. The elements in this hierarchy are knowledge, comprehension, application, analysis, synthesis, and evaluation such that the learner begins with low level memory skills identified as knowledge, and ends up with high level skills involving evaluation (Popham, 1981). Teaching involves a complex process whereby teachers need to first learn how to adopt skills, attitudes, and cultivate the cognitive knowledge needed to teach students effectively.

This study is concerned with examining whether prospective teachers in Manitoba have some level of knowledge (which is the first level of Bloom's cognitive domain) in consumer studies using a minimum competency or achievement test (Ebel, 1980). Bloom's definition of knowledge has been adopted for this study as that which "involves the recall of specifics or universals, the recall of methods and processes, or the recall of a pattern, structure, or setting" (Popham, 1981, p.329).

RELEVANT LITERATURE

A search of the literature revealed that research in consumer education has concentrated predominantly on high school students. Davis (1979) and Garman (1979) both conducted an Autumn 1977 ERIC (Education Resources Information Centre) search which revealed that there were no studies specifically dealing with teacher preparation for consumer education. For the purpose of this study, an ERIC search was conducted in 1983 and in 1984, and only six studies were found examining the competency of consumer education teachers. It seems reasonable that one must assess teacher's consumer education knowledge before one can make any meaningful assessments about the consumer knowledge of students. In the words of Davis, "it is highly probable that if teachers are better prepared and competent for teaching consumer education, students will become more competent consumers" (Davis, 1979, p.191).

Davis (1979) found that there was a statistically significant difference (using chi-square analysis with $p=0.01$) between those teachers who had no courses in consumer education or related subjects and those who had

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some preparation in these areas. The teachers with some preparation were better equipped to teach consumer education. Garman (1979) too, discovered in his survey of 4,309 subjects that prospective teachers who finished one or more consumer education courses scored higher on an achievement test than those without any consumer related courses. A t-test revealed significant differences at the 0.001 level. Carsky, Lytton, and McLaughlin (1984) found in their study involving 182 university undergraduates enrolled in a consumer education class that post-secondary consumer education courses can lead to positive changes in consumer competency of these students. This positive change was determined using analysis of variance with p=0.05. Langrehr (1979) also found significant differences in consumer knowledge between students enrolled in consumer education classes and those in other classes.

Garman (1979) found that major and minor area of study, and gender affected performance on the general test of consumer knowledge. Participants with majors in social studies, science, and home economics (human ecology) scored higher on the test, and participants with minors in home economics and business scored higher than those with other minors. Garman (1979) also found that gender was a possible factor influencing consumer knowledge. In his study, males scored significantly higher on the consumer test than did females with a 5 value of 9.15 and a significance level of p=0.001.

Besides finding that consumer related courses helped equip teachers to teach consumer education, Davis (1979) also found a statistically significant difference between teachers who felt competent and those who did not feel competent to teach consumer education using chi-square statistic with p=0.01. Those teachers who had credit courses in consumer studies, workshops, or both did feel more effective and competent to teach. Her findings were that 58.2% of 600 teachers in Kentucky felt competent to teach, and 32.7% of teachers teaching consumer education did not feel competent to teach. As well, 46.4% did not have any training in consumer education, and 48.1% did not feel their teacher preparation was sufficient. Apparently, according to Davis, if a teacher feels competent the teacher is likely to feel prepared to teach.

Research in the area of teacher preparation in consumer education has dealt little with an examination of factors, other than coursework and feelings of competence, which are helpful in preparing and indicating the willingness of teachers to teach consumer education. No research has been found that attempts to examine other factors such as age, marital status, and consumer management experiences that may have influenced the preparation of teachers.

RESEARCH DESIGN

Sample

The sample was composed of 159 participants from the University of Manitoba and 28 from Brandon University making a total sample size of 187. All were prospective secondary school teachers in their final year of study and had the following majors or teaching electives: business, human ecology, mathematics, science and social studies.

Instruments

An achievement test entitled the Test of Consumer Knowledge (TCK) was administered which consisted of 48 multiple choice items. This was modified by the researchers from tests developed by Stanley (1975) and Dlabay (1984) to ensure suitability in Canada, and was pretested with a similar group of senior students during the previous terms. The test items were compared for construct validity with curriculum guidelines. The TCK was checked for internal reliability using the Kuder-Richardson formula number 20, and the reliability coefficient was found to be 0.997. This means that the test was accurately measuring some characteristic of the people taking it. Stanley's (1975) Form "A" and Form "B" test had a reliability coefficient of 0.733 and 0.738 respectively (Garman, 1977). A high reliability coefficient of .70 or higher also means that the individual items on the test were producing similar patterns of responses in different people (Bruning & Kintz, 1977). A high reliability coefficient of .997 means that the test items were homogeneous, and therefore reliable.

Respondents also completed a questionnaire designed to:

1. Determine the number of consumer related courses that have been taken by each participant.

2. Measure some particular life experiences of prospective teachers which include childrearing experiences, and consumer management experiences (Dlabay, 1984; Gordon, 1972; Jelley, 1973) that may affect performance on the Test of Consumer Knowledge, TCK.

3. Measure the feelings of confidence/competence of prospective teachers for teaching consumer education courses.

4. Obtain demographic information regarding age, sex, and marital status.

Data Analysis

For descriptive purposes a series of cross-tabulative analyses were made using categorized data. The dependent variable score on the TCK, was examines using the Chi-square statistic, and in some cases gamma was used to test for any relationships with the independent variables (Goodman, 1979; Mendenhall, 1979).

The significance level (alpha score) for chi-square was set at $p<.05$ for testing the hypotheses in this study.

RESULTS AND DISCUSSION

The sample was composed of 96 males (51%) and 91 females (49%) with the majority of prospective teachers being in their early twenties. Respondents between the ages of 20-24 made up 62% of the total sample, and those 25 years and over made up the remaining 38%. The majority of the participants (67%) were single, and the remaining 33% were either married, divorced or separated.

The test scores on the 48-item test called Test of Consumer Knowledge were marked on a percentage basis, with 48 correct answers out of 48 questions scoring 100%. In general terms the test results can be sub-divided into three group of achievers; low achievers, moderate achievers, and high achievers. In the low achiever category 56 (30%) of participants scored between 35.4% - 69.99%. In the moderate achievers category 70 (37%) scored between 70.77 - 79.99%. Finally, in the high achievers category, 61 (33%) scored between 80.00% - 91.7%. In the chi-square analyses of hypotheses, test score was grouped into low, moderate, and high achievers throughout the study. Of the 187 completed tests, the mean achievement raw score on the 48-item test was 35.7 or 74.3% with a standard deviation of 4.63.

TABLE 1

Chi-square Analysis for Independent Variables and Test Score

Variable	Test Score (percent) Low (n=56) ≤69.99	Moderate (n=70) 70.0-79.99	High (n=61) ≥80.00	Total number	Total percent
Sex n=187					
Male	27	40	33	96	(100)
Female	33	36	33	91	(100)
χ^2=1.083, d.f.=2, p=0.5817					
Age n=185					
(20-22)	43	37	20	68	(100)
(23-27)	25	40	35	81	(100)
(28-51)	17	33	50	36	(100)
χ^2=13.362, d.f.=4, p=0.0096**					
Consumer related courses n=187					
None	34	38	28	144	(100)
1 or More	16	35	49	43	(100)
χ^2=8.082, d.f.=2, p=0.0176*					
Consumer management experiences n=187					
Low	51	30	19	81	(100)
Moderate	17	46	37	71	(100)
High	9	37	54	35	(100)
χ^2=33.298, d.f.=4, p=0.0001***					
Marital status n=187					
Single	35	33	32	125	(100)
Married and/or previously married	19	47	34	62	(100)
χ^2=5.981, d.f.=2, p=0.0504					
Childrearing experiences n=187					
None	33	37	33	160	(100)
1 or More children	30	37	33	27	(100)
χ^2=0.007, d.f.=2, p=0.9964					
Confidence/competence n=187					
Low	47	34	19	62	(100)
Moderate	21	39	37	76	(100)
High	18	30	43	49	(100)
χ^2=14.704, d.f.=4, p=0.0054**					
Willingness to teach n=185					
Yes	25	38	38	137	(100)
No	45	39	16	48	(100)
χ^2=10.386, d.f.=2, p=0.0056**					

p≤0.001***
p≤0.01**
p≤0.05*

As may be seen in Table 1, sex was not significantly related to test score. These results do not support the findings of Garman (1977) in his national study, who found that males scored significantly better on the achievement test than did females. This difference may be due to an increased participation of women in the labour force, and more involvement of women in major financial decision-making. Age, as expected, was shown to have a definite impact on TCK performance. Those prospective teachers aged 28 years and over performed significantly better on the test than did the other prospective teachers (χ^2=13.4, d.f.=4, $p<.01$).

Respondents were asked to indicate if they had completed any consumer related courses. They were asked to identify the title or course number of any consumer related courses that they had taken at university. Of the 187 prospective teachers, 144 had not completed any consumer related courses while 43 had completed from one to seven.

To test the hypothesis that those prospective teachers with consumer related courses would score high on the TCK than those without consumer related courses, the chi-square statistic was used. The variable 'consumer related courses' had to be grouped as those without courses, and those with one course or more to avoid difficulties with the cell size using chi-square analysis (Erickson, 1977). The test score was grouped according to the low, moderate, and high achievers categories. As was hypothesized, consumer related courses were significantly correlated to test score whereby χ^2=8.08, with a probability of p=0.0176 (see Table 1). Therefore, those subjects who had taken consumer related courses were more likely to achieve higher scores on the TCK than those without these courses.

Consumer management experiences, such as buying a home, obtaining life insurance or filing income tax were found to be very significantly correlated with TCK score with χ^2=33.29 and p=0.0001. Of those with low scores on the TCK, 51% had few consumer management experiences (0-15) while 9% had high numbers of experiences (31-65). The mean test score for the low experience group was 70, for the moderate group was 77 and for the high group was 80.

The hypothesis that previous experience in consumer matters is a better predictor of score on the TCK than the number of consumer related courses taken was strongly supported. Using the gamma statistic, the significance level of consumer related courses to test score was 0.395, while the significance of consumer management experiences to test score was 0.518 (see Table 2). It is apparent that consumer management experiences are more strongly related to score on the TCK than consumer related courses,

consequently it is a better predictor of test score.

TABLE 2

Differences in Mean Test Scores of Prospective Teachers as related to Consumer Management Experiences

No. of consumer management experiences	Mean % score on TCK	Standard deviation	Frequency n=187	Percent (100%)
low 0-15	69.86	10.53	81	43
moderate 16-30	76.70	7.61	71	38
high 31-65	80.30	6.1	35	19

gamma=0.318, d.f.=4

Confidence/competence of prospective teachers to teach consumer education was found to be significantly related to test score. Results found that a higher level of confidence was significantly related to a higher test score with χ^2=14.70 and p=0.0054 (see Table 1). Those that indicated they had a high level of confidence scored significantly higher on the Test of Consumer Knowledge than did those that indicated they had a lower level of confidence, with p=0.0054. This finding supports similar findings by Davis (1979). In Davis' study, teachers who felt competent or confident to teach consumer education felt better prepared to teach consumer education. This study sought to determine whether those prospective teachers that indicated they had a high level of confidence/competence also had more knowledge in consumer studies and would display a greater willingness to teach consumer education. The finding did show that this relationship was significant using chi-square with p=0.0001.

It was hypothesized that human ecology majors would score higher on the TCK than students majoring in business, mathematics, science, and social studies. The hypothesis was based on the fact that there are a larger proportion of consumer courses in human ecology than in any other Faculty (University of Manitoba, Calendar, 1984); consequently, human ecology students would have greater access and opportunity to take consumer related courses. The findings of the study showed that human ecology students did score the highest on the TCK, (77.92%), slightly above science majors (77.78%); however, no statistical analysis was done to test the significance of this finding because there were only 10 human ecology majors compared to 24 in science, 58 in social studies, 24 in business and 12 in mathematics. The remaining students had majors in other categories.

Garman (1977) found that the highest scoring majors on the Test of Consumer Competencies were the following in descending order: Social studies with a mean percent score of (63.96, science (63.80) and home economics (63.60). A one-way analysis of variance revealed significant differences among the majors at or beyond the 0.0001 level. In this study, the category sizes were not sufficiently large enough to be representative in some statistical analyses.

In this study, neither marital status of the respondents not their childrearing experiences were found to have any relationship with score on the Test of Consumer Knowledge. Both variables had collinearity problems with each other, and with the variables of age and consumer management experiences, which may account for the lack of significant findings.

IMPLICATIONS AND CONCLUSION

It is apparent from the study that consumer knowledge was influenced by age, consumer management experiences, feelings of confidence/competence, and number of consumer related courses taken by prospective teachers. Only 33% of the sample were classified as scoring high on the achievement test, and a major portion of these high scorers were made up of those that were older, had more consumer management experiences, had a high degree of confidence/competence, and had taken consumer related courses. The findings of this study reinforced the idea that knowledge about consumer matters is not only attainable from the classroom, but is also gained from life experiences. School administrators would benefit if they kept these factors in mind while they select teachers to teach consumer education. Also based upon the finding that consumer related courses were significantly related to consumer knowledge, it may be beneficial to the school administration to provide training or workshops for teachers that would be teaching consumer education.

Concurrently, the findings of the study suggest that school administrators should not select consumer education teachers based upon gender, marital status, or childrearing experiences as might be intuitively expected. It was found that these variables had no bearing on the level of consumer knowledge of prospective teachers. This study did not find that one sex had more consumer knowledge than the other, that married and/or previously married subjects scored higher on the Test of Consumer Knowledge than single subjects, or that those with the experience of raising children had more consumer knowledge than those without children.

More than basic knowledge in a subject is needed before a teacher can adequately teach a course. Future research should attempt to examine teacher effectiveness in teaching consumer education by testing the higher levels of Bloom's cognitive domain; comprehension, application, analysis, synthesis, and evaluation. This would give researchers and practitioners more information concerning teacher preparation than was found in this study concerning consumer knowledge.

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MINUTES

WRHMFEE CONFERENCE

Friday, November 9, 1984

Honolulu, Hawaii

1. The meeting was called to order at 12:15 p.m. by the President, Judith Zimmerman. Approval of the minutes from the 1983 Conference was delayed until the 1985 meeting.

2. Karen Schnittgrund, Executive Director, reported that $50 had been sent to the Beatrice Paolucci Memorial Fund and read a portion of the letter sent from Michigan State thanking the group for the donation. She submitted the following financial report:

Balance, October 1, 1984	$1503.76
Research Awards Disbursements	800.00
Balance, November 9, 1984	$ 703.76

She also reported that guidelines will be developed during the year for each of the committee chairs. Anyone wishing to make recommendations about what should be included in these guidelines should submit these to her.

3. 1983 Conference--John Burton, Utah State University. The financial statement for the 1983 Conference was presented. After all costs are covered, the estimated balance will be $404.33. The Proceedings from the 1983 Conference will be mailed in the near future.

1984 Conference--Diane Masuo, University of Hawaii. A preliminary financial statement was presented which indicates that there were 37 regular registrants and 12 student registrants. All expenses should be covered.

1985 Conference--Molly Longstreth, University of Arizona. Molly invited the group to be 1985 Conference in Scottsdale, Arizona which will be co-sponsored by Arizona State University and University of Arizona. The meeting will be held at the Doubletree Inn on November 6, 7, and 8, 1985.

1986 Conference--A discussion was held about the group's preference to meet in downtown San Francisco or Asilomar. The group voted to meet in San Francisco.

1987 Conference--Ruth Berry, University of Manitoba, invited the Conference to meet in Canada in 1987. The location will be announced next year.

4. WRHMFEE Research Awards - The report from Research Chair, Jeanne Smith, was submitted. Nine Ph.D. and three Master's level manuscripts were received. Award winners and first alternates were selected for each level. These papers were presented at the 1984 Conference. John Burton moved that the Ph.D. award be given in 1985 and the Master's award be given in 1986 to alternate in each year thereafter. Molly Longstreth seconded. The motion carried.

Newsletter Editors - The report from the newsletter co-editor, Pam Olson, was submitted. The newsletter is sent out quarterly to approximately 125 people. Jean Lown moved that job announcements be included in the newsletter. Molly Longstreth seconded. The motion carried. Ron Wall moved that there should be no fee to institutions who wish to place job announcements in the newsletter. Sally Horton seconded. A brief discussion followed. The motion carried. This policy will be reviewed at a later date. Diane Masuo suggested that we develop a way to notify people when their subscriptions expire. It was also suggested that a mailing be done once a year to all institutions in the Western region to recruit new subscribers.

Refereed Papers - Molly Longstreth, Chair, reported that 15 papers were submitted to the committee for review. Ten of the papers were submitted by faculty at schools located in the western region. Each paper was initially reviewed by two referees. Five papers were accepted as refereed papers to be presented at the Conference. Molly thanked the members of her committee for their work in reviewing papers.

Reviewed Papers - Diane Masuo, Chair, reported that 15 papers were received and 12 were accepted for presentation at the Conference. Ten papers were from the western region. A question was raised about the difference between refereed and reviewed papers. Molly explained the criteria for refereed papers as papers that are potentially acceptable for publication in refereed journals and are reviewed by blind reviewers. Reviewed papers are selected at the discretion of the host institution.

5. Election of Officers - Donna Selnick, Chair, Nominations Committee, presented the slate of officers: Judith Zimmerman, President and Karen Schnittgrund, Executive Director. There were no nominations from the floor. John Burton moved that the nominations be closed. Sally Horton seconded. The motion carried. Virginia Langrehr moved for acceptance of the slate. Molly Longstreth seconded. The motion carried.

6. Old Business - A brief discussion was held about overlapping meetings with the Association of Financial Counseling and Educators. It was decided that there was no problem at this point. Discussion was closed.

7. New Business - A discussion of making it a policy to have Proceedings available at the beginning of the Conference was held. Jean Lown moved that we have Proceedings available at the beginning of the meeting. Ruth Berry seconded. The motion carried. Ruth Berry was appointed as Proceedings Editor to facilitate this process.

8. Meeting was adjourned at 1:15 p.m.

WRHMFEE CONFERENCE 1984

Financial Statement - Final

Income				
Beginning Fund			$ 200.00	
Balance forwarded from 1983 Conference			200.00	
		Sub-total	$ 400.00	$ 400.00
Receipts (Conference)				
Registration	38 @ $55.00		$2090.00	
	12 @ 10.00		120.00	
Lunches	43 @ 8.00		344.00	
	42 @ 8.00		336.00	
	38 @ 8.00		304.00	
Proceedings	2 @ 5.00		10.00	
		Sub-total	$3204.00	3204.00
Receipts (Other)				
Newsletter	43 @ 2.50		110.00	
Dividends (checking and savings accounts)			42.89	
		Sub-total	152.89	152.89
			Total	$3756.89
Expenditures (Conference)				
Honorarium			100.00	
Proceedings and Program Materials			513.76	
Meals, Coffee breaks			1360.40	
Supplies			65.74	
Flowers and supplies			105.26	
Checking account fee			7.35	
Repayment of start-up fund			200.00	
Refunds			153.50	
		Sub-total	2506.01	2506.01
Expenditures (Other)				
Newsletter subscriptions			107.50	107.50
			Total	$2613.51
			BALANCE	$1143.38

MINUTES

WRHMFEE CONFERENCE

Friday, November 8, 1985

Scottsdale, Arizona

1. The meeting was called to order at 9:30 a.m. by the Executive Director Karen Schnittgrund in the absence of the President. The 1983 and 1984 minutes were approved.

2. The financial report was made by Karen Schnittgrund, Executive Director. The general account shows a balance of $1508.29 from which $150 is yet to be taken for the scholarship award and $1000 for an advance to this year's conference. A discussion followed on whether the scholarship fund should be kept separate, and if so, where it should be. The motion to approve the financial report was not passed as presented. A motion was made to have the WRHMFEE account statement include all of the separate line items (including the scholarship fund) and to move the scholarship fund under the direction of the Executive Director. This motion was carried.

3. 1984 Conference—Karen Schnittgrund. After expenses were covered the balance was sent to Karen. She advanced $1000 of it to this year's conference.

   1985 Conference—Joel Rudd. A preliminary financial statement was presented. Costs this year could be kept down and a good conference provided because of a $1000 carry-over from last year. This can't be counted on again. A discussion followed of the fact that numbers have dropped. Future conference committees should plan fees around 50-60 registrants. This report was approved as presented.

   1986 Conference—Jeanne Smith. Next year's conference will be held from November 13 at 2:00 p.m. to November 15 at noon at the Miyako Hotel in the Japan Center in San Francisco. The theme will be "Investing in Human Capital." Papers will be encouraged on that theme, but will be accepted from the full gamut of HM-FE topics.

   1987 Conference—Ruth Berry. This conference will be held in Vancouver, B.C. Full details will be available next year.

4. Proceedings Report. Ruth Berry reported that the full proceedings will be sent out in January. A motion was made to modify last year's recommendation so that proceedings will be handled as they were this year and the deadline will be later for submitting refereed papers. (In other words, refereed and reviewed papers and discussants' remarks will be made available at the conference. Final proceedings to include invited papers will be distributed after the conference.)

   A friendly amendment pinpointed June 1st as the submission date for refereed papers. This carried.

5. Research Awards—Kathleen Slaugh. Martha Snider was the Ph.D. winner this year. Next year the award will be for a Masters. A motion to make the amount of the award for Masters the same as for Ph.D.s was carried. It was decided to include a space on the conference registration form for voluntary contributions to the scholarship fund.

6. Newsletter account report—Pam Olson. There are approximately 120 subscribers. The current balance is $343.99.

7. Papers committee report—Cathleen Zick and Molly Longstreth. There were 5 refereed and 18 reviewed submissions. Discussion following showed that the distinction between criteria for refereed and reviewed submission is not clear. A motion was carried that a description of the differences between refereed and reviewed papers be included in the call for papers, and the call for papers be included in the March newsletter.

   A further motion was carried to institute a continuing title for the proceedings with a changing volume number.

8. Elections—Mari Wilhelm, Chair of the Nominations Committee, presented two nominations for President, Arlene Holyoak and Peggy Berger. A blind vote confirmed Arlene as the next President. The following slate of candidates was nominated by the Nominations Committee. No nominations were received from the floor and a motion to accept the Committee's slate was carried.

Scholarship committee:	Sally Horton
	Pam Olson
	Jane McCullough
Refereed papers:	Nancy Drennan
	Jean Lown
	Mari Wilhelm
	Jeanne Peters

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Reviewed papers: Karen Schnittgrund
Tricia Ormsby
Norleen Ackerman

9. New Business—An invitation was extended to hold the conference in Reno, Nevada, in 1988.

A motion to index past proceedings from 1975 on by author & title was carried. Carole Makela offered to set this in motion.

10. The meeting was adjourned at 10:35 a.m.